

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
EASTERN DIVISION**

RODNEY D. PIERCE; *et al.*,

Plaintiffs,

v.

THE NORTH CAROLINA STATE  
BOARD OF ELECTIONS; *et al.*,

Defendants.

Case No. 4:23-cv-193-D

**EXPERT REPORT OF JOHN R. ALFORD, Ph.D.**

December 22, 2023

## **SCOPE OF INQUIRY**

I have been retained by counsel for Legislative Defendants, as an expert to provide analysis related to *Gingles* prongs 2 and 3, and racially polarized voting as related to the challenge to the senate maps for the State of North Carolina. I have been asked by counsel to examine and respond to the report provided by the plaintiffs' expert, Dr. Matt Barreto, and the associated data and materials provided in disclosure. This is a limited initial analysis that pertains to the Plaintiffs' preliminary injunction motion. My rate of compensation in this matter is \$600 per hour and my compensation does not depend on the outcome of this lawsuit.

## **SUMMARY**

The election analysis provided by Dr. Barreto shows that Black and White voters provide different levels of support for Republican and Democratic candidates in North Carolina elections. The election analysis does not show the same pattern in response to variation in the race of the candidates. The high cohesion demonstrated by Black voters in these elections is not a function of Black voters coalescing around Black candidates but rather is a function of cohesive Black voter preferences for Democratic party candidates. Similarly, the tendency of White voters to vote for Republican candidates running against the preferred candidates of Black voters is not reserved for opposition to Black Democratic candidates but is instead cohesive support for Republican candidates no matter whether the candidates are White or Black. In addition, while the levels of White crossover voting vary by geography, the overall levels are high enough to suggest that majority Black districts are not necessary to allow the election of Black preferred candidates.

## **QUALIFICATIONS**

I am a tenured full professor of political science at Rice University. In my over thirty-five years at Rice University, I have taught courses on redistricting, elections, political representation, voting behavior, and statistical methods at both the undergraduate and graduate levels. I am the author of numerous scholarly works on political behavior. These works have appeared in academic journals such as the *American Journal of Political Science*, *Journal of Politics*, *Science*, *Annual*

*Review of Political Science, Legislative Studies Quarterly, Annals of the American Academy of Political and Social Science, Political Psychology, and Political Research Quarterly.*

Over the last thirty-five years, I have worked with numerous local governments on districting plans and on Voting Rights Act issues. I have previously provided expert reports and/or testified as an expert witness in voting rights and statistical issues in a variety of court cases in Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Michigan, Mississippi, New Mexico, New York, Pennsylvania, Washington, and Wisconsin. The details of my academic background, including all publications in the last ten years, and my work as an expert, including all cases in which I have testified by deposition or at trial in the last four years, are covered in the attached CV (Appendix A).

### **DATA AND SOURCES**

In preparing my report, I have reviewed the reports filed by the plaintiffs' expert Dr. Matt Barreto. I have also relied for my report on the election and voter data from the North Carolina State Board of Election that is cited by Dr. Barreto as the data he used as the basis for his report (page 2). I have attempted to match as closely as possible the data and analysis assumptions described by Dr. Barreto, however, despite a request for his data files and details of his analysis, Dr. Barreto declined to provide the actual data files he utilized. He also declined to provide the details of his EI procedures and options beyond what is described in his report. This added considerable time to the effort to confirm Dr. Barreto's results through a replication process and limited the scope of analysis for this report.

### **METHODS**

Dr. Barreto and I both utilize the statistical technique of Ecological Inference (EI), developed originally by Professor Gary King.<sup>1</sup> EI is a more efficient technique intended specifically to improve on ecological regression (ER), the analysis technique previously used in

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<sup>1</sup> King, Gary. (1997). *A Solution to the Ecological Inference Problem*. Princeton Univ. Press.

VRA lawsuits to assess voter cohesion and polarization. In a nutshell, traditional ecological regression is a mathematical technique for estimating the single best-fitting straight line that could be drawn to describe the relationship between two variables in a scatter plot. Applied to voting rights cases, the logic of ecological regression analysis is to determine to what degree, if any, the vote for a candidate increases in a linear fashion as the concentration of voters of a given ethnicity in the precincts increases. In contrast, King's EI procedure utilizes a method of bounds analysis, combined with a more traditional statistical method, to improve on standard ecological regression. While the details are mathematically complex, the differences mostly center on utilizing deterministic bounds information contained in individual precinct results that would not be exploited in ecological regression. In addition, EI relaxes the linear constraint that a traditional ecological regression analysis would impose on the pattern across precincts. This combination in EI of relaxing some assumptions and utilizing more information typically yields a more efficient estimation of cohesion and polarization when compared to standard ecological regression, although in many cases the results from EI are not substantively different than ER results for the same election data.

In its original form, King's EI could only be used to estimate voter support when there were two racial groups (e.g., White and Black) and two candidates, hence the label "2 x 2 EI" often applied to the original form. Often there are more than two racial groups (e.g., White, Black, and Latino), or more than two possible vote choices. To accommodate these situations, one would have to run an independent 2 x 2 EI analysis for each race of interest and for each candidate of interest (and for the no voting category), an approach suggested by King and labeled the 'iterative' approach to "R x C" (Rows by Columns) estimation.

Shortly after suggesting the iterative method, King published a more advanced theoretical approach to R x C estimation using a Multinomial-Dirichlet Bayesian technique. A fully Bayesian implementation of this approach was viewed by King and his coauthors as computationally impractical, given that it could take as long as a week or more to run a single model on the

computers available at that time, and they provided instead an implementation that relied on nonlinear least-squares.<sup>2</sup> Finally, in 2007 Lau and colleagues, taking advantage of advancements in computing technology, implemented the fully Bayesian estimation procedure outline by King, et al and provided a software module called “eiPack” that included the module ‘ei.MD.bayes’ that allowed for the estimation of the true Bayesian approach.<sup>3</sup> This is the implementation of EI R x C that I have relied on here, and is also one of the techniques relied on by Dr. Barreto for his analysis in this case.

## ELECTION ANALYSIS

Dr. Barreto’s report includes only a limited election analysis. It is typical in these cases to provide analysis covering the most recent decade of elections (here that would mean going back to at least 2014), but Dr. Barreto only covers 2020 and 2022, the two most recent general election cycles. In these two election years, Dr. Barreto provided individual election analysis results for 7 exogenous statewide elections in 2022, and 20 exogenous statewide elections in 2020. He reports EI estimates for “Republicans” and “Democrats” in state legislative elections, including the endogenous state Senate elections, only in two combined categories that he labels “NC State House” and “NC State Senate,” without providing results for any individual election contests. In addition, Dr. Barreto provides no analysis of Democratic primary elections, something that is commonly included (see for example Appendix B, Dr Lisa Handley’s inclusion of North Carolina Democratic primary elections in her 2019 expert report in *Common Cause v. Lewis*), Dr. Barreto also focuses on a limited geographic area. He reports statewide analysis, and analysis in what he terms the “10-county Northeast region,” but he provides no discussion of how these 10 counties were selected, and no RPV analysis for any other areas or any existing districts.

Dr. Barreto sets the stage for his election analysis by offering his definition of Racially

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<sup>2</sup> See Rosen, Jiang, King, and Tanner., *Bayesian and Frequentist Inference for Ecological Inference: The R x C Case*, 55 STATISTICA NEERLANDICA 134 (2001).

<sup>3</sup> See Lau, Olivia, Ryan T. Moore, and Michael Kellermann. "eiPack: Ecological Inference and Higher-Dimension Data Management," R News, vol.7, no. 2 (October 2007).

Polarized Voting. As he says “we next examine whether voters of different racial/ethnic backgrounds tend to prefer different or similar candidates in a wide range of electoral settings. The phenomenon called racially polarized voting (RPV) is defined as voters of different racial or ethnic groups exhibiting different candidate preferences in an election” (page 7). In line with this presumably social science definition, Dr. Barreto refers at several points (see paragraphs 11, 22, and 28 for example) to finding that there is “statistically significant” racially polarized voting in North Carolina. In contrast, he does not specifically discuss how his definition of statistically significant racially polarized voting might connect to any definition of *legally* significant racial polarized voting.

I began my analysis with an attempt to replicate selected results of the RxC Ecological Inference (EI) analysis provided by Dr. Barreto in this case, using the election and voter data sources he cited.<sup>4</sup> My initial replication results are substantively similar to those reported by Dr. Barreto, but do not match as precisely as would be expected based on my experience in multiple similar cases. This is not unexpected given the uncertainties occasioned by the above-mentioned absence of any disclosed input data files or any details of the EI analytical options used by Dr. Barreto for his report. To avoid confusion over whether my conclusions detailed below depend in any way on methodological or data differences, I will confine my analysis to the various numerical EI RxC results produced by Dr. Barreto in his report and appendices for my discussion throughout this report.

#### **A. A Comparison of Two U.S. Senate Elections**

In Table 1 below, I report the results for the two U.S. Senate elections included in Dr. Barreto’s RPV analysis. The EI RxC estimates in Table 1 are taken directly from Dr. Barreto’s Appendix A, Table A2, on pages 17-19 of his report.<sup>5</sup> The 2020 contest features a White Democrat

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<sup>4</sup> The data programing required for the EI RxC analysis for this report was performed by my Rice colleague Dr. Randy Stevenson under my direction and control.

<sup>5</sup> In this table, and the tables that follow, the geographic groupings of Northeast 1, Northeast 2, and Pitt/Edgecombe are those defined and utilized by Dr. Barreto in his report.

running against a White Republican, while in the 2020 contest, a Black Democrat is running against a White Republican. In both contests Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is consistent with a polarized response to the party affiliation indicated on the ballot.

**Table 1: U.S Senate Election EI RxC Estimates from Barreto's Appendix A**

Year	Office	Candidate	Party	Race	Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
					White	Black	White	Black	White	Black	White	Black
2020	U.S. Senate	Tillis	R	W	74	1	88	1	85	1	81	1
		Cunningham	D	W	26	99	12	99	15	99	18	99
2022	U.S. Senate	Budd	R	W	68	1	87	1	83	1	77	1
		Beasley	D	B	32	99	13	99	18	99	23	99
Same Race Candidate Advantage					-6	0	-1	0	-2	0	-5	0

In contrast to the strong impact of candidate party affiliation, the race of the candidates does not appear to have a polarizing impact on vote choice. While we might expect Black voters to provide significantly more support to a Black candidate, Black voters are only three-tenths of one percent more supportive of the Black Democrat compared to the White Democrat statewide (and support is similarly essentially identical in the regional results). While we might expect White voters to show increased opposition to a Black candidate, White voters are not more likely to oppose a Black Democrat compared to a White Democrat, and in fact, are if anything slightly more supportive of the Black Democrat in 2022 compared to the White Democrat in 2020. Even these slight differences may reflect only the differences in the election context between a specific off-year like 2022 and an on-year like 2020.

## **B. A Comparison of Three State Court Elections**

Table 2 below is similar to Table 1, but here the results are for the three 2020 State Supreme Court elections included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 2 are taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. While the U.S. Senate elections in Table 1 were in different years, these three State Supreme Court elections hold the election context constant, as all three are for the same office, on the same ballot, and in the

same November 2020 election. The contests for Seat #2 and Seat #4 feature a White Democrat running against a White Republican, while in the Seat #1 contest, a Black Democrat is running against a White Republican. In all three contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is consistent with a polarized response to the party affiliation indicated on the ballot.

**Table 2: State Supreme Court Elections EI RxC Estimates from Barreto’s Appendix A**

Year	Office	Candidate	Party	Race	Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
					White	Black	White	Black	White	Black	White	Black
2020	Supreme Court #1	Newby	R	W	73	1	87	1	83	1	80	1
		Beasley	D	B	27	99	13	99	17	99	20	99
2020	Supreme Court #2	Berger	R	W	74	1	87	1	84	1	81	1
		Inman	D	W	26	99	12	99	16	99	19	99
2020	Supreme Court #4	Barringer	R	W	75	1	87	1	84	1	80	0
		Davis	D	W	25	99	14	99	17	99	20	99
		Average for White Democrats			26	99	13	99	16	99	19	99
		Black Democrat			27	99	13	99	17	99	20	99
		Same Race Candidate Advantage			-1	0	0	0	0	0	0	0

In contrast to the strong impact of candidate party affiliation, here, as was the case for the U.S. Senate elections, the race of the candidates does not appear to have a polarizing impact on vote choice. While we might expect Black voters to provide significantly more support to a Black candidate, Black voter support for the Black Democrat compared to the average Black voter support for the White Democrats, statewide and in the regional results, is essentially identical. While we might expect White voters to show increased opposition to a Black candidate, White voters are not more likely to oppose a Black Democrat compared to a White Democrat, with support for the Black Democrat essentially identical to the support for the White Democrats in these contests.

### C. A Comparison of Five State Appeals Court Elections

Table 3 below is similar to Tables 1 and 2, but here the results are for the five 2020 State Appeals Court elections included in Dr. Barreto’s RPV analysis. The EI RxC estimates in Table 3 are again taken directly from Dr. Barreto’s Appendix A, Table A2, on pages 17-19 of his report. Again, these five State Appeals Court elections hold the election context constant, as all five are



for the same office, on the same ballot, and in the same November 2020 election. The contests for Seats #4, #6, and #13 feature a White Democrat running against a White Republican. The Seat #7 contest features a Black Democrat running against a White Republican, while the Seat #5 contest features a White Democrat running against a Black Republican. In all five contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot.

**Table 3: State Appeals Court Elections EI RxC Estimates from Barreto's Appendix A**

Year	Office	Candidate	Party	Race	Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
					White	Black	White	Black	White	Black	White	Black
2020	Appeals Court #4	Wood	R	W	75	1	88	1	85	1	83	1
		Shields	D	W	25	98	11	99	14	99	17	99
2020	Appeals Court #6	Dillon	R	W	76	1	88	1	85	1	83	1
		Styers	D	W	24	99	11	99	14	99	18	99
2020	Appeals Court #13	Griffin	R	W	75	1	87	1	85	1	81	1
		Brook	D	W	25	99	13	99	15	99	19	99
		White /White Republican Average			75	1	88	1	85	1	82	1
		White /White Democratic Average			25	99	12	99	15	99	18	99
2020	Appeals Court #7	Carpenter	R	W	75	1	88	1	85	1	82	1
		Young	D	B	25	99	12	99	15	99	18	99
2020	Appeals Court #5	Gore	R	B	75	1	88	1	85	1	82	1
		Cubbage	D	W	25	99	12	99	15	99	18	99

The almost exact similarity of the voting patterns here is notable. The Black Republican candidate in the Seat #5 contest gets no more Black voter support and no less White voter support than does the average White Republican candidate. The Black Democratic candidate in the Seat #7 contest gets no more Black voter support and no less White voter support than does the average White Democratic candidate.

#### **D. All 2020 and 2022 Elections**

Table 4 below is similar to Tables 1, 2, and 3, but here the results are for all of the 2020 election contests included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 4 are again taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. Three of the contests (Appeals Court #7, Labor Commissioner, and Supreme Court #1) feature a Black Democrat running against a White Republican. The Appeals Court #5 contest features a Black

Republican running against a White Democrat. The Lt. Governor contest features a Black Democrat running against a Black Republican. The remaining election contests involve White candidates from each party, except for the Treasurer contest, with an Asian Democrat, and the President/Vice President contest, where the Democratic Vice-Presidential candidate is Black (these two contests are not included in computing the average vote shares for White Democrats reported at the bottom of Table 4, and similarly the combined State House and State Senate contests are not included in any of the summary calculations as there is no racial information for the multiple candidates involved in these reported estimates).

In all 20 contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot. In contrast to the strong impact of candidate party affiliation, here, as was the case for the selected elections in the previous tables, the race of the candidates does not appear to have a polarizing impact on vote choice. In fact, the impact of the race of the candidates on both Black and White voters is essentially undetectable. The almost exact similarity of the voting patterns here is notable. The Black Republican candidates get no more Black voter support and no less White voter support than the average White Republican candidate. The Black Democratic candidates get no more Black voter support and no less White voter support than the average White Democratic candidate.

**Table 4: All 2020 Elections EI RxC Estimates from Barreto's Appendix A**

Year	Office	Candidate	Party	Race	Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
					White	Black	White	Black	White	Black	White	Black
2020	Attorney General	O'Neill	R	W	73	1	86	1	83	1	79	1
		Stein	D	W	28	99	14	99	17	99	21	99
2020	Agriculture Commission	Troxler	R	W	78	1	92	1	88	1	86	1
		Wadsworth	D	W	22	99	8	99	11	99	14	99
2020	Appeals Court #13	Griffin	R	W	75	1	87	1	85	1	81	1
		Brook	D	W	25	99	13	99	15	99	19	99
2020	Appeals Court #4	Wood	R	W	75	1	88	1	85	1	83	1
		Shields	D	W	25	98	11	99	14	99	17	99
2020	Appeals Court #5	Gore	R	B	75	1	88	1	85	1	82	1
		Cubbage	D	W	25	99	12	99	15	99	18	99
2020	Appeals Court #6	Dillon	R	W	76	1	88	1	85	1	83	1
		Styers	D	W	24	99	11	99	14	99	18	99
2020	Appeals Court #7	Carpenter	R	W	75	1	88	1	85	1	82	1
		Young	D	B	25	99	12	99	15	99	18	99
2020	Auditor	Street	R	W	72	1	83	1	79	1	74	1
		Wood	D	W	29	99	17	99	22	99	26	99
2020	Governor	Forest	R	W	70	1	85	1	81	1	78	1
		Cooper	D	W	31	100	15	99	19	99	22	99
2020	Insurance Commission	Causey	R	W	76	1	86	1	84	1	83	1
		Goodwin	D	W	25	99	14	99	16	99	18	99
2020	Labor Commission	Dobson	R	W	74	1	87	1	84	1	81	1
		Holmes	D	B	26	99	13	99	16	99	19	99
2020	Lt. Governor	Robinson	R	B	75	1	89	1	86	1	83	1
		Holley	D	B	25	99	11	99	14	99	17	99
2020	President	Trump/Pence	R	W/W	73	1	89	1	85	1	81	1
		Biden/Harris	D	W/B	27	99	11	99	15	99	19	99
2020	Sec. of State	Sykes	R	W	71	1	83	1	80	1	77	1
		Marshall	D	W	29	99	17	99	20	99	23	99
2020	State Superintendent	Truitt	R	W	75	1	88	1	84	1	81	0
		Mangrum	D	W	25	98	12	99	15	99	19	99
2020	Supreme Court #1	Newby	R	W	73	1	87	1	83	1	80	1
		Beasley	D	B	27	99	13	99	17	99	20	99
2020	Supreme Court #2	Berger	R	W	74	1	87	1	84	1	81	1
		Inman	D	W	26	99	12	99	16	99	19	99
2020	Supreme Court #4	Barringer	R	W	75	1	87	1	84	1	80	0
		Davis	D	W	25	99	14	99	17	99	20	99
2020	Treasurer	Folwell	R	W	76	1	89	1	86	1	81	1
		Chatterji	D	A	24	99	11	99	14	99	19	99
2020	U.S. Senate	Tillis	R	W	74	1	88	1	85	1	81	1
		Cunningham	D	W	26	99	12	99	15	99	18	99
2020	NC State House	Republicans	R	x	75	1	84	1	83	1	82	1
		Democrats	D	x	25	99	16	99	17	99	18	99
2020	NC State Senate	Republicans	R	x	75	1	88	1	84	1	80	1
		Democrats	D	x	26	99	12	99	16	99	20	99
		All Republicans			74	1	87	1	84	1	81	1
		White Republicans			74	1	87	1	84	1	81	1
		Black Republicans			75	1	89	1	86	1	83	1
		All Democrats			26	99	13	99	16	99	19	99
		White Democrats			26	99	13	99	16	99	19	99
		Black Democrats			26	99	13	99	16	99	19	99

Table 5 below is similar to Table 4, but here the results are for all of the 2022 election

contests included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 5 are again taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. Three of the contests (U.S. Senate, State Appeals Court #8, and State Appeals Court #10) feature a Black Democrat running against a White Republican. The remaining four election contests involve White candidates from each party (the combined State House and State Senate contests are not included in any of the summary calculations as there is no racial information for the multiple candidates involved in these reported estimates).

**Table 5: All 2022 Elections EI RxC Estimates from Barreto's Appendix A**

Year	Office	Candidate	Party	Race	Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
					White	Black	White	Black	White	Black	White	Black
2022	Appeals Court # 10	Tyson	R	W	70	1	88	1	83	1	79	1
		Adams	D	B	30	99	12	99	17	99	22	99
2022	Appeals Court # 11	Stading	R	W	70	1	87	1	83	1	78	1
		Jackson	D	W	30	99	13	99	17	99	22	99
2022	Appeals Court #8	Flood	R	W	69	1	86	1	83	1	78	1
		Thompson	D	B	31	99	14	99	17	99	22	99
2022	Appeals Court #9	Stroud	R	W	72	1	89	1	85	1	80	1
		Salmon	D	W	28	99	11	99	16	99	20	99
2022	Supreme Court #3	Dietz	R	W	69	1	87	1	83	1	79	1
		Inman	D	W	31	99	13	99	17	99	21	99
2022	Supreme Court #5	Allen	R	W	69	1	86	2	82	1	77	0
		Ervin	D	W	31	99	14	98	18	99	22	99
2022	U.S. Senate	Budd	R	W	68	1	87	1	83	1	77	1
		Beasley	D	B	32	99	13	99	18	99	23	99
2022	NC State House	Republicans	R	x	66	1	84	3	80	1	77	1
		Democrats	D	x	34	99	16	98	20	99	23	99
2022	NC State Senate	Republicans	R	x	62	18	88	1	83	1	79	1
		Democrats	D	x	38	82	12	99	17	99	22	99
		All Democrats			31	99	13	99	17	99	22	99
		White Democrats			30	99	13	99	17	99	21	99
		Black Democrats			31	99	13	99	17	99	22	99

In all 7 contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot. In contrast to the strong impact of candidate party affiliation, here, as was the case in the previous tables, the race of the candidates does not appear to have a polarizing impact on vote choice. In fact, the impact of the race of the candidates on both Black and White voters is essentially undetectable. The almost exact similarity of the voting patterns here is notable. The Black Republican candidates get no more Black voter support and no

less White voter support than the average White Republican candidate. The Black Democratic candidates get no more Black voter support and no less White voter support than the average White Democratic candidate.

#### **F. District Performance**

On pages 12 and 13 of his report, Dr. Barreto comments on the performance of various adopted and demonstration districts. As noted above, all of the Black-preferred candidates are also the Democratic candidates in the general elections Dr. Barreto considers. As such his assessment of the performance is simply the expected Democratic share of the general election vote in the district. Democratic majority districts will ‘perform’, and Republican majority districts will not. No where does he address the related issue of whether a 50% Black district (or any other Black population share threshold) is necessary for the district to perform for Black voters.

### **SUMMARY CONCLUSIONS**

Dr. Barreto’s report provided a limited analysis that showed that Black voters cohesively support candidates and that those candidates do not receive support from the majority of White voters. With no indication of the race or partisan affiliation of these candidates, it is difficult to determine anything more from his results. However, with that information added to his EI results, as was done for the tables above, it is clear that Black voters cohesively support Democratic candidates, and that the majority of White voters support Republican candidates.

In contrast, it is not the case that Dr. Barreto’s election analysis supports the conclusion that Black voters cohesively support Black candidates, as they are no more likely to support a Black Democratic candidate than they are to support a White Democratic candidate, and similarly, no less likely to oppose a Black Republican candidate than they are to oppose a White Republican candidate. Similarly, it is not the case that a majority of White voters regularly oppose Black candidates, as they are no more likely to oppose a Black Democratic candidate than they are to oppose a White Democratic candidate, and similarly, no less likely to support a Black Republican candidate than they are to support a White Republican candidate.

Dr. Barreto suggests that somehow these highly apparent facts coming directly from his own analysis must by definition be ignored. In his discussion of racially polarized voting on page 7 of his report he states:

*The phenomenon called racially polarized voting (RPV) is defined as voters of different racial or ethnic groups exhibiting different candidate preferences in an election. It means simply that voters of different racial or ethnic groups are voting in polar opposite directions, rather than in a multi-racial or multiethnic coalition. If some groups of voters are voting in coalition, RPV analysis will identify such a trend. Voters may vote for their candidates of choice for a variety of reasons, and RPV analysis is agnostic as to why voters make decisions. RPV analysis simply reports how voters are voting.*

But as the tables above make clear, an RPV analysis need not be limited in what it can reveal by arbitrarily blocking out useful information like the race and party affiliation of the candidates. Dr. Barreto may not believe those facts are relevant as a legal matter, but that does not alter the fact that they are conclusions that can be drawn reliably from an RPV analysis. This may be an inconvenient truth, but it is a truth, nonetheless. Dr. Barreto clearly believes that this fact pattern has, or at least should have, no legal significance, but that is not entirely clear. A Fifth Circuit appeals panel in *League of United Latin American Citizens v. Clements*, 999 F.2d 831 (Fifth Cir. 1993), explored this legal issue in some detail, writing:

*A central issue here, one that divided the panel and one over which the parties vigorously disagree, concerns Gingles' white bloc voting inquiry and the closely related Zimmer factor directing courts to examine "the extent to which voting . . . is racially polarized." S.Rep. 417 at 29, reprinted in 1982 U.S. Code Cong. Admin.News at 206. As the Court in Gingles held, the question here is not whether white residents tend to vote as a bloc, but whether such bloc voting is "legally significant." Gingles, 478 U.S. at 55, 106 S.Ct. at 2768; Salas v. Southwest Texas Jr. College Dist., 964 F.2d 1542, 1553 (5th Cir. 1992). In finding a violation of § 2 in each of the nine challenged counties, the district court held that plaintiffs need only demonstrate that whites and blacks generally support different candidates to establish legally significant white bloc voting. Because "it is the difference between choices made by blacks and whites alone . . . that is the central inquiry of § 2," the court excluded evidence tending to prove that these divergent voting patterns were attributable to factors other than race as "irrelevant" and "legally [in]competent."*

*On appeal, defendants contend that the district court erred in refusing to consider the nonracial causes of voting preferences they offered at trial. Unless the tendency among minorities and whites to support different candidates, and the accompanying losses by*

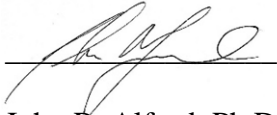
*minority groups at the polls, are somehow tied to race, defendants argue, plaintiffs' attempt to establish legally significant white bloc voting, and thus their vote dilution claim under § 2, must fail. When the record indisputably proves that partisan affiliation, not race, best explains the divergent voting patterns among minority and white citizens in the contested counties, defendants conclude, the district court's judgment must be reversed.*

*We agree. The scope of the Voting Rights Act is indeed quite broad, but its rigorous protections, as the text of § 2 suggests, extend only to defeats experienced by voters "on account of race or color." Without an inquiry into the circumstances underlying unfavorable election returns, courts lack the tools to discern results that are in any sense "discriminatory," and any distinction between deprivation and mere losses at the polls becomes untenable. In holding that the failure of minority-preferred candidates to receive support from a majority of whites on a regular basis, without more, sufficed to prove legally significant racial bloc voting, the district court loosed § 2 from its racial tether and fused illegal vote dilution and political defeat. In so doing, the district court ignored controlling authorities: *Whitcomb v. Chavis*, 403 U.S. 124, 91 S.Ct. 1858, 29 L.Ed.2d 363 (1971), which established a clean divide between actionable vote dilution and "political defeat at the polls"; the 1982 amendments, enacted to restore a remedy in cases "where a combination of public activity and private discrimination have joined to make it virtually impossible for minorities to play a meaningful role in the electoral process," *Hearings on the Voting Rights Act Before the Subcomm. on the Constitution of the Senate Comm. of the Judiciary*, 97th Cong., 2d Sess. 1367-68 (statement of Prof. Drew Days) (emphasis added); and *Thornburg v. Gingles*, 478 U.S. 30, 106 S.Ct. 2752, 92 L.Ed.2d 25 (1986), where a majority of the Justices rejected the very test employed by the district court as a standard crafted to shield political minorities from the vicissitudes of "interest-group politics rather than a rule hedging against racial discrimination." *Id.* at 83, 106 S.Ct. at 2782 (White, J., concurring); *id.* at 101, 106 S.Ct. at 2792 (O'Connor, J., joined by Burger, C.J., Powell and Rehnquist, JJ., concurring). We must correct these errors.*

Other courts and other circuits have reached different conclusions, and the issue of whether these concerns are relevant only at the Senate factors, or the totality of the circumstances, phase also remains a divided issue. The origin of Dr. Barreto's view of this as a legal matter is largely centered on Justice Brennan's *Gingles*' opinion, but as multiple courts have pointed out, that section of his opinion failed to unite a majority of the Court even then.

Whatever the legal significance, or lack of it, the analysis proved by Dr. Barreto, limited as it is in time and space, clearly demonstrates that the party affiliation of the candidates is sufficient to fully explain the divergent voting preferences of Black and White voters in the 2020 and 2022 North Carolina elections.

December 22, 2023.

A handwritten signature in black ink, appearing to read 'John R. Alford', is written over a horizontal line.

John R. Alford, Ph.D



# Appendix A

**John R. Alford**  
Curriculum Vitae  
December 2023

Dept. of Political Science  
Rice University - MS-24  
P.O. Box 1892  
Houston, Texas 77251-1892  
713-348-3364  
jra@rice.edu

**Employment:**

Professor, Rice University, 2015 to present.  
Associate Professor, Rice University, 1985-2015.  
Assistant Professor, University of Georgia, 1981-1985.  
Instructor, Oakland University, 1980-1981.  
Teaching-Research Fellow, University of Iowa, 1977-1980.  
Research Associate, Institute for Urban Studies, Houston, Texas, 1976-1977.

**Education:**

Ph.D., University of Iowa, Political Science, 1981.  
M.A., University of Iowa, Political Science, 1980.  
M.P.A., University of Houston, Public Administration, 1977.  
B.S., University of Houston, Political Science, 1975.

**Books:**

*Predisposed: Liberals, Conservatives, and the Biology of Political Differences.* New York: Routledge, 2013. Co-authors, John R. Hibbing and Kevin B. Smith. (2<sup>nd</sup> Edition under contract)

**Articles:**

“Political Orientations Vary with Detection of Androstenone,” with Amanda Friesen, Michael Gruszczynski, and Kevin B. Smith. **Politics and the Life Sciences.** (Spring, 2020).

“Intuitive ethics and political orientations: Testing moral foundations as a theory of political ideology.” with Kevin Smith, John Hibbing, Nicholas Martin, and Peter Hatemi. **American Journal of Political Science.** (April, 2017).

“The Genetic and Environmental Foundations of Political, Psychological, Social, and Economic Behaviors: A Panel Study of Twins and Families.” with Peter Hatemi, Kevin Smith, and John Hibbing. **Twin Research and Human Genetics.** (May, 2015.)

“Liberals and conservatives: Non-convertible currencies.” with John R. Hibbing and Kevin B. Smith. **Behavioral and Brain Sciences** (January, 2015).

“Non-Political Images Evoke Neural Predictors Of Political Ideology.” with Woo-Young Ahn, Kenneth T. Kishida, Xiaosi Gu, Terry Lohrenz, Ann Harvey, Kevin Smith, Gideon Yaffe, John Hibbing, Peter Dayan, P. Read Montague. **Current Biology.** (November, 2014).

“Cortisol and Politics: Variance in Voting Behavior is Predicted by Baseline Cortisol Levels.” with Jeffrey French, Kevin Smith, Adam Guck, Andrew Birnie, and John Hibbing. **Physiology & Behavior**. (June, 2014).

“Differences in Negativity Bias Underlie Variations in Political Ideology.” with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

“Negativity bias and political preferences: A response to commentators Response.” with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

“Genetic and Environmental Transmission of Political Orientations.” with Carolyn L. Funk, Matthew Hibbing, Kevin B. Smith, Nicholas R. Eaton, Robert F. Krueger, Lindon J. Eaves, John R. Hibbing. **Political Psychology**, (December, 2013).

“Biology, Ideology, and Epistemology: How Do We Know Political Attitudes Are Inherited and Why Should We Care?” with Kevin Smith, Peter K. Hatemi, Lindon J. Eaves, Carolyn Funk, and John R. Hibbing. **American Journal of Political Science**. (January, 2012)

“Disgust Sensitivity and the Neurophysiology of Left-Right Political Orientations.” with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **PlosONE**, (October, 2011).

“Linking Genetics and Political Attitudes: Re-Conceptualizing Political Ideology.” with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **Political Psychology**, (June, 2011).

“The Politics of Mate Choice.” with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Journal of Politics**, (March, 2011).

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” with Peter Hatemi, John Hibbing, Sarah Medland, Matthew Keller, Kevin Smith, Nicholas Martin, and Lindon Eaves, **American Journal of Political Science**, (July, 2010).

“The Ultimate Source of Political Opinions: Genes and the Environment” with John R. Hibbing in **Understanding Public Opinion**, 3rd Edition eds. Barbara Norrander and Clyde Wilcox, Washington D.C.: CQ Press, (2010).

“Is There a ‘Party’ in your Genes” with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Political Research Quarterly**, (September, 2009).

“Twin Studies, Molecular Genetics, Politics, and Tolerance: A Response to Beckwith and Morris” with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (December, 2008). This is a solicited response to a critique of our 2005 APSR article “Are Political Orientations Genetically Transmitted?”

“Political Attitudes Vary with Physiological Traits” with Douglas R. Oxley, Kevin B. Smith, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, **Science**, (September 19, 2008).

“The New Empirical Biopolitics” with John R. Hibbing, **Annual Review of Political Science**, (June, 2008).

“Beyond Liberals and Conservatives to Political Genotypes and Phenotypes” with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (June, 2008). This is a solicited response to a critique of our 2005 APSR article “Are Political Orientations Genetically Transmitted?”

"Personal, Interpersonal, and Political Temperaments" with John R. Hibbing, **Annals of the American Academy of Political and Social Science**, (November, 2007).

"Is Politics in our Genes?" with John R. Hibbing, **Tidsskriftet Politik**, (February, 2007).

"Biology and Rational Choice" with John R. Hibbing, **The Political Economist**, (Fall, 2005)

"Are Political Orientations Genetically Transmitted?" with John R. Hibbing and Carolyn Funk, **American Political Science Review**, (May, 2005). (The main findings table from this article has been reprinted in two college level text books - Psychology, 9th ed. and Invitation to Psychology 4th ed. both by Wade and Tavris, Prentice Hall, 2007).

"The Origin of Politics: An Evolutionary Theory of Political Behavior" with John R. Hibbing, **Perspectives on Politics**, (December, 2004).

"Accepting Authoritative Decisions: Humans as Wary Cooperators" with John R. Hibbing, **American Journal of Political Science**, (January, 2004).

"Electoral Convergence of the Two Houses of Congress" with John R. Hibbing, in **The Exceptional Senate**, ed. Bruce Oppenheimer, Columbus: Ohio State University Press, (2002).

"We're All in this Together: The Decline of Trust in Government, 1958-1996." in **What is it About Government that Americans Dislike?**, eds. John Hibbing and Beth Theiss-Morse, Cambridge: Cambridge University Press, (2001).

"The 2000 Census and the New Redistricting," **Texas State Bar Association School Law Section Newsletter**, (July, 2000).

"Overdraft: The Political Cost of Congressional Malfeasance" with Holly Teeters, Dan Ward, and Rick Wilson, **Journal of Politics** (August, 1994).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 5th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1993).

"The 1990 Congressional Election Results and the Fallacy that They Embodied an Anti-Incumbent Mood" with John R. Hibbing, **PS** 25 (June, 1992).

"Constituency Population and Representation in the United States Senate" with John R. Hibbing. **Legislative Studies Quarterly**, (November, 1990).

"Editors' Introduction: Electing the U.S. Senate" with Bruce I. Oppenheimer. **Legislative Studies Quarterly**, (November, 1990).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 4th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1988). Reprinted in *The Congress of the United States, 1789-1989*, ed. Joel Silby, Carlson Publishing Inc., (1991), and in *The Quest for Office*, eds. Wayne and Wilcox, St. Martins Press, (1991).

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge. **The Western Political Quarterly** (December, 1986).

"Partisanship and Voting" with James Campbell, Mary Munro, and Bruce Campbell, in **Research in Micropolitics. Volume 1 - Voting Behavior**. Samuel Long, ed. JAI Press, (1986).

"Economic Conditions and Individual Vote in the Federal Republic of Germany" with Jerome S. Legge. **Journal of Politics** (November, 1984).

"Television Markets and Congressional Elections" with James Campbell and Keith Henry. **Legislative Studies Quarterly** (November, 1984).

"Economic Conditions and the Forgotten Side of Congress: A Foray into U.S. Senate Elections" with John R. Hibbing, **British Journal of Political Science** (October, 1982).

"Increased Incumbency Advantage in the House" with John R. Hibbing, **Journal of Politics** (November, 1981). Reprinted in *The Congress of the United States, 1789-1989*, Carlson Publishing Inc., (1991).

"The Electoral Impact of Economic Conditions: Who is Held Responsible?" with John R. Hibbing, **American Journal of Political Science** (August, 1981).

"Comment on Increased Incumbency Advantage" with John R. Hibbing, Refereed communication: **American Political Science Review** (March, 1981).

"Can Government Regulate Safety? The Coal Mine Example" with Michael Lewis-Beck, **American Political Science Review** (September, 1980).

### **Awards and Honors:**

CQ Press Award - 1988, honoring the outstanding paper in legislative politics presented at the 1987 Annual Meeting of the American Political Science Association. Awarded for "The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing.

### **Research Grants:**

National Science Foundation, 2009-2011, "Identifying the Biological Influences on Political Temperaments", with John Hibbing, Kevin Smith, Kim Espy, Nicolas Martin and Read Montague. This is a collaborative project involving Rice, University of Nebraska, Baylor College of Medicine, and Queensland Institute for Medical Research.

National Science Foundation, 2007-2010, "Genes and Politics: Providing the Necessary Data", with John Hibbing, Kevin Smith, and Lindon Eaves. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2007-2010, "Investigating the Genetic Basis of Economic Behavior", with John Hibbing and Kevin Smith. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the Queensland Institute of Medical Research.

Rice University Faculty Initiatives Fund, 2007-2009, "The Biological Substrates of Political Behavior". This is in assistance of a collaborative project involving Rice, Baylor College of Medicine, Queensland Institute of Medical Research, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2004-2006, "Decision-Making on Behalf of Others", with John Hibbing. This is a collaborative project involving Rice and the University of Nebraska.

National Science Foundation, 2001-2002, dissertation grant for Kevin Arceneaux, "Doctoral Dissertation Research in Political Science: Voting Behavior in the Context of U.S. Federalism."

National Science Foundation, 2000-2001, dissertation grant for Stacy Ulbig, "Doctoral Dissertation Research in Political Science: Sub-national Contextual Influences on Political Trust."

National Science Foundation, 1999-2000, dissertation grant for Richard Engstrom, "Doctoral Dissertation Research in Political Science: Electoral District Structure and Political Behavior."

Rice University Research Grant, 1985, Recent Trends in British Parliamentary Elections.

Faculty Research Grants Program, University of Georgia, Summer, 1982. Impact of Media Structure on Congressional Elections, with James Campbell.

## **Papers Presented:**

"The Physiological Basis of Political Temperaments" 6th European Consortium for Political Research General Conference, Reykjavik, Iceland (2011), with Kevin Smith, and John Hibbing.

"Identifying the Biological Influences on Political Temperaments" National Science Foundation Annual Human Social Dynamics Meeting (2010), with John Hibbing, Kimberly Espy, Nicholas Martin, Read Montague, and Kevin B. Smith.

"Political Orientations May Be Related to Detection of the Odor of Androstenone" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, Amanda Balzer, Michael Gruszczynski, Carly M. Jacobs, and John Hibbing.

"Toward a Modern View of Political Man: Genetic and Environmental Transmission of Political Orientations from Attitude Intensity to Political Participation" Annual meeting of the American Political Science Association, Washington, DC (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Genetic and Environmental Transmission of Political Involvement from Attitude Intensity to Political Participation" Annual meeting of the International Society for Political Psychology, San Francisco, CA (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Are Violations of the EEA Relevant to Political Attitudes and Behaviors?" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, and John Hibbing.

"The Neural Basis of Representation" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with John Hibbing.

“Genetic and Environmental Transmission of Value Orientations” Annual meeting of the American Political Science Association, Toronto, Canada (2009), with Carolyn Funk, Kevin Smith, Matthew Hibbing, Pete Hatemi, Robert Krueger, Lindon Eaves, and John Hibbing.

“The Genetic Heritability of Political Orientations: A New Twin Study of Political Attitudes” Annual Meeting of the International Society for Political Psychology, Dublin, Ireland (2009), with John Hibbing, Cary Funk, Kevin Smith, and Peter K Hatemi.

“The Heritability of Value Orientations” Annual meeting of the Behavior Genetics Association, Minneapolis, MN (2009), with Kevin Smith, John Hibbing, Carolyn Funk, Robert Krueger, Peter Hatemi, and Lindon Eaves.

“The Ick Factor: Disgust Sensitivity as a Predictor of Political Attitudes” Annual meeting of the Midwest Political Science Association, Chicago, IL (2009), with Kevin Smith, Douglas Oxley, Matthew Hibbing, and John Hibbing.

“The Ideological Animal: The Origins and Implications of Ideology” Annual meeting of the American Political Science Association, Boston, MA (2008), with Kevin Smith, Matthew Hibbing, Douglas Oxley, and John Hibbing.

“The Physiological Differences of Liberals and Conservatives” Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Kevin Smith, Douglas Oxley, and John Hibbing.

“Looking for Political Genes: The Influence of Serotonin on Political and Social Values” Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Peter Hatemi, Sarah Medland, John Hibbing, and Nicholas Martin.

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” Annual meeting of the American Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Matthew Keller, Nicholas Martin, Sarah Medland, and Lindon Eaves.

“Factorial Association: A generalization of the Fulker between-within model to the multivariate case” Annual meeting of the Behavior Genetics Association, Amsterdam, The Netherlands (2007), with Sarah Medland, Peter Hatemi, John Hibbing, William Coventry, Nicholas Martin, and Michael Neale.

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” Annual meeting of the Midwest Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Nicholas Martin, and Lindon Eaves.

“Getting from Genes to Politics: The Connecting Role of Emotion-Reading Capability” Annual Meeting of the International Society for Political Psychology, Portland, OR, (2007.), with John Hibbing.

“The Neurological Basis of Representative Democracy.” Hendricks Conference on Political Behavior, Lincoln, NE (2006), with John Hibbing.

“The Neural Basis of Representative Democracy” Annual meeting of the American Political Science Association, Philadelphia, PA (2006), with John Hibbing.

“How are Political Orientations Genetically Transmitted? A Research Agenda” Annual meeting of the Midwest Political Science Association, Chicago Illinois (2006), with John Hibbing.



"The Politics of Mate Choice" Annual meeting of the Southern Political Science Association, Atlanta, GA (2006), with John Hibbing.

"The Challenge Evolutionary Biology Poses for Rational Choice" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing and Kevin Smith.

"Decision Making on Behalf of Others" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2005), with John Hibbing and Carolyn Funk.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the American Political Science Association, Chicago Illinois (2004), with John Hibbing and Carolyn Funk.

"Accepting Authoritative Decisions: Humans as Wary Cooperators" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2002), with John Hibbing

"Can We Trust the NES Trust Measure?" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2001), with Stacy Ulbig.

"The Impact of Organizational Structure on the Production of Social Capital Among Group Members" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Allison Rinden.

"Isolating the Origins of Incumbency Advantage: An Analysis of House Primaries, 1956-1998" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Kevin Arceneaux.

"The Electorally Indistinct Senate," Norman Thomas Conference on Senate Exceptionalism, Vanderbilt University; Nashville, Tennessee; October (1999), with John R. Hibbing.

"Interest Group Participation and Social Capital" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (1999), with Allison Rinden.

"We're All in this Together: The Decline of Trust in Government, 1958-1996." The Hendricks Symposium, University of Nebraska, Lincoln. (1998)

"Constituency Population and Representation in the United States Senate," Electing the Senate; Houston, Texas; December (1989), with John R. Hibbing.

"The Disparate Electoral Security of House and Senate Incumbents," American Political Science Association Annual Meetings; Atlanta, Georgia; September (1989), with John R. Hibbing.

"Partisan and Incumbent Advantage in House Elections," Annual Meeting of the Southern Political Science Association (1987), with David W. Brady.

"Personal and Party Advantage in U.S. House Elections, 1846-1986" with David W. Brady, 1987 Social Science History Association Meetings.



"The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing, 1987 Annual Meeting of the American Political Science Association.

"A Comparative Analysis of Economic Voting" with Jerome Legge, 1985 Annual Meeting of the American Political Science Association.

"An Analysis of Economic Conditions and the Individual Vote in Great Britain, 1964-1979" with Jerome Legge, 1985 Annual Meeting of the Western Political Science Association.

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge, 1985 Annual Meeting of the Southwestern Social Science Association.

"Economic Conditions and the Individual Vote in the Federal Republic of Germany" with Jerome S. Legge, 1984 Annual Meeting of the Southern Political Science Association.

"The Conditions Required for Economic Issue Voting" with John R. Hibbing, 1984 Annual Meeting of the Midwest Political Science Association.

"Incumbency Advantage in Senate Elections," 1983 Annual Meeting of the Midwest Political Science Association.

"Television Markets and Congressional Elections: The Impact of Market/District Congruence" with James Campbell and Keith Henry, 1982 Annual Meeting of the Southern Political Science Association.

"Economic Conditions and Senate Elections" with John R. Hibbing, 1982 Annual Meeting of the Midwest Political Science Association. "Pocketbook Voting: Economic Conditions and Individual Level Voting," 1982 Annual Meeting of the American Political Science Association.

"Increased Incumbency Advantage in the House," with John R. Hibbing, 1981 Annual Meeting of the Midwest Political Science Association.

### **Other Conference Participation:**

Roundtable Participant – Closing Round-table on Biopolitics; 2016 UC Merced Conference on Bio-Politics and Political Psychology, Merced, CA.

Roundtable Participant "Genes, Brains, and Core Political Orientations" 2008 Annual Meeting of the Southwestern Political Science Association, Las Vegas.

Roundtable Participant "Politics in the Laboratory" 2007 Annual Meeting of the Southern Political Science Association, New Orleans.

Short Course Lecturer, "What Neuroscience has to Offer Political Science" 2006 Annual Meeting of the American Political Science Association.

Panel chair and discussant, "Neuro-scientific Advances in the Study of Political Science" 2006 Annual Meeting of the American Political Science Association.

Presentation, "The Twin Study Approach to Assessing Genetic Influences on Political Behavior" Rice Conference on New Methods for Understanding Political Behavior, 2005.

Panel discussant, "The Political Consequences of Redistricting," 2002 Annual Meeting of the American Political Science Association.

Panel discussant, "Race and Redistricting," 1999 Annual Meeting of the Midwest Political Science Association.

Invited participant, "Roundtable on Public Dissatisfaction with American Political Institutions", 1998 Annual Meeting of the Southwestern Social Science Association.

Presentation, "Redistricting in the '90s," Texas Economic and Demographic Association, 1997.

Panel chair, "Congressional Elections," 1992 Annual Meeting of the Southern Political Science Association.

Panel discussant, "Incumbency and Congressional Elections," 1992 Annual Meeting of the American Political Science Association.

Panel chair, "Issues in Legislative Elections," 1991 Annual Meeting of the Midwest Political Science Association.

Panel chair, "Economic Attitudes and Public Policy in Europe," 1990 Annual Meeting of the Southern Political Science Association

Panel discussant, "Retrospective Voting in U.S. Elections," 1990 Annual Meeting of the Midwest Political Science Association.

Co-convener, with Bruce Oppenheimer, of Electing the Senate, a national conference on the NES 1988 Senate Election Study. Funded by the Rice Institute for Policy Analysis, the University of Houston Center for Public Policy, and the National Science Foundation, Houston, Texas, December, 1989.

Invited participant, Understanding Congress: A Bicentennial Research Conference, Washington, D.C., February, 1989.

Invited participant--Hendricks Symposium on the United States Senate, University of Nebraska, Lincoln, Nebraska, October, 1988

Invited participant--Conference on the History of Congress, Stanford University, Stanford, California, June, 1988.

Invited participant, "Roundtable on Partisan Realignment in the 1980's", 1987 Annual Meeting of the Southern Political Science Association.

## **Professional Activities:**

### **Other Universities:**

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2018.

Invited Speaker, Annual Allman Family Lecture, Dedman College Interdisciplinary Institute, Southern Methodist University, 2016.

Invited Speaker, Annual Lecture, Psi Sigma Alpha – Political Science Dept., Oklahoma State University, 2015.

Invited Lecturer, Department of Political Science, Vanderbilt University, 2014.

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2014.

Invited Speaker, Graduate Student Colloquium, Department of Political Science, University of New Mexico, 2013.

Invited Keynote Speaker, Political Science Alumni Evening, University of Houston, 2013.

Invited Lecturer, Biology and Politics Masters Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2010.

Invited Lecturer, Biology and Politics Senior Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2008.

Visiting Fellow, the Hoover Institution, Stanford University, 2007.

Invited Speaker, Joint Political Psychology Graduate Seminar, University of Minnesota, 2007.

Invited Speaker, Department of Political Science, Vanderbilt University, 2006.

**Member:**

Editorial Board, Journal of Politics, 2007-2008.

Planning Committee for the National Election Studies' Senate Election Study, 1990-92.

Nominations Committee, Social Science History Association, 1988

**Reviewer for:**

American Journal of Political Science

American Political Science Review

American Politics Research

American Politics Quarterly

American Psychologist

American Sociological Review

Canadian Journal of Political Science

Comparative Politics

Electoral Studies

Evolution and Human Behavior

International Studies Quarterly

Journal of Politics  
Journal of Urban Affairs  
Legislative Studies Quarterly  
National Science Foundation  
PLoS ONE  
Policy Studies Review  
Political Behavior  
Political Communication  
Political Psychology  
Political Research Quarterly  
Public Opinion Quarterly  
Science  
Security Studies  
Social Forces  
Social Science Quarterly  
Western Political Quarterly

### **University Service:**

Member, University Senate, 2021-2023.

Member, University Parking Committee, 2016-2022.

Member, University Benefits Committee, 2013-2016.

Internship Director for the Department of Political Science, 2004-2018.

Member, University Council, 2012-2013.

Invited Speaker, Rice Classroom Connect, 2016.

Invited Speaker, Glasscock School, 2016.

Invited Speaker, Rice Alumni Association, Austin, 2016.

Invited Speaker, Rice Alumni Association, New York City, 2016.

Invited Speaker, Rice TEDxRiceU , 2013.

Invited Speaker, Rice Alumni Association, Atlanta, 2011.

Lecturer, Advanced Topics in AP Psychology, Rice University AP Summer Institute, 2009.

Scientia Lecture Series: "Politics in Our Genes: The Biology of Ideology" 2008

Invited Speaker, Rice Alumni Association, Seattle, San Francisco and Los Angeles, 2008.

Invited Speaker, Rice Alumni Association, Austin, Chicago and Washington, DC, 2006.

Invited Speaker, Rice Alumni Association, Dallas and New York, 2005.

[11]

Director: Rice University Behavioral Research Lab and Social Science Computing Lab, 2005-2006.

University Official Representative to the Inter-university Consortium for Political and Social Research, 1989-2012.

Director: Rice University Social Science Computing Lab, 1989-2004.

Member, Rice University Information Technology Access and Security Committee, 2001-2002

Rice University Committee on Computers, Member, 1988-1992, 1995-1996; Chair, 1996-1998, Co-chair, 1999.

Acting Chairman, Rice Institute for Policy Analysis, 1991-1992.

Divisional Member of the John W. Gardner Dissertation Award Selection Committee, 1998

Social Science Representative to the Educational Sub-committee of the Computer Planning Committee, 1989-1990.

Director of Graduate Admissions, Department of Political Science, Rice University, 1986-1988.

Co-director, Mellon Workshop: Southern Politics, May, 1988.

Guest Lecturer, Mellon Workshop: The U.S. Congress in Historical Perspective, May, 1987 and 1988.

Faculty Associate, Hanszen College, Rice University, 1987-1990.

Director, Political Data Analysis Center, University of Georgia, 1982-1985.

### **External Consulting:**

Expert Witness, Shafer et al v. Pearland ISD, racially polarized voting analysis, 2023.

Expert Witness, Nairne et al v. Ardoin, (Louisiana) racially polarized voting analysis, 2023.

Expert Witness, Petteway v. Galveston County, racially polarized voting analysis, 2023.

Expert Witness, Dixon v. Lewisville ISD, racially polarized voting analysis, 2022.

Expert Witness, Soto Palmer v. Hobbs, (Washington State), racially polarized voting analysis, 2022.

Expert Witness, Pendergrass v. Raffensperger, (Georgia State House and Senate), racially polarized voting analysis, 2022.

Expert Witness, LULAC, et al. v. Abbott, et al., Voto Latino, et al. v. Scott, et al., Mexican American Legislative Caucus, et al. v. Texas, et al., Texas NAACP v. Abbott, et al., Fair Maps Texas, et al. v. Abbott, et al., US v. Texas, et al. (consolidated cases) challenges to Texas Congressional, State Senate, State House, and State Board of Education districting, 2022.

Expert Witness, Robinson/Galmon v. Ardoin, (Louisiana), racially polarized voting analysis, 2022.

Expert Witness, Christian Ministerial Alliance et al v. Arkansas, racially polarized voting analysis, 2022.

Expert Witness, Johnson v. Wisconsin Elections Commission, 2022.

Expert Witness, Rivera, et al. v. Schwab, Alonzo, et al. v. Schwab, Frick, et al. v. Schwab, (consolidated cases) challenge to Kansas congressional map, 2022.

Expert Witness, Grant v. Raffensperger, challenge to Georgia congressional map, 2022

Expert Witness, Brooks et al. v. Abbot, challenge to State Senate District 10, 2022.

Expert Witness, Elizondo v. Spring Branch ISD, 2022.

Expert Witness, Portugal v. Franklin County, et al., challenge to Franklin County, Washington at large County Commissioner's election system, 2022.

Consulting Expert, Gressman Math/Science Petitioners, Pennsylvania Congressional redistricting, 2022.

Consultant, Houston Community College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Lone Star College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Killeen ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Houston ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Brazosport ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Dallas ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Lancaster ISD – redrawing of all school board member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, City of Baytown – redrawing of all city council member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, Goose Creek ISD – redrawing of all board member election districts including demographic analysis and redrawing of election districts, 2021.

Expert Witness, Bruni et al. v. State of Texas, straight ticket voting analysis, 2020.

Consulting Expert, Sarasota County, VRA challenge to district map, 2020.

Expert Witness, Kumar v. Frisco ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Vaughan v. Lewisville ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Johnson v. Ardoin, (Louisiana), racially polarized voting analysis, 2019.

# Appendix B

# Exhibit A



**Providing Black Voters with an Opportunity to Elect Candidates of Choice to the North Carolina State Legislature: A Jurisdiction-Specific, Functional Analysis of Select House and Senate County Grouping**

Lisa Handley

September 17, 2019

**I. Scope of Report**

I was asked by counsel for Plaintiffs in this matter to conduct an analysis of voting patterns in select state House and Senate county groupings in North Carolina and, if voting in an election contest is racially polarized, to calculate the percent black voting age population necessary to provide black voters with an opportunity to elect their candidate of choice. In one county (Robeson County), I also performed these calculations for the Native American population.

The district-specific, functional analysis I performed is specific to those counties and districts presented in this report. Particularly given the differences in voting patterns that exist across North Carolina, my analysis cannot be extrapolated to other counties and districts not analyzed in this report, including districts that currently have African American representatives that I did not evaluate.

**II. Professional Experience**

I have over thirty years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in more than 25 voting rights cases. My clients have included state and local jurisdictions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing and teaching on subjects relating to voting rights, including minority representation, electoral system design and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992), and co-edited a volume, *Redistricting in Comparative Perspective* (Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*,

*American Politics Quarterly*, *Journal of Law and Politics*, and *Law and Policy*, as well as in edited books and law reviews.

I am one of the co-authors of the 2001 *North Carolina Law Review* article, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,”<sup>1</sup> relied on by one of Defendants’ experts in this case, Dr. Jeffrey Lewis. In addition to writing this piece, I have used the approach outlined in it to conduct numerous district-specific, functional analyses both for interested jurisdictions and in the context of litigation. For example, most recently, I was asked to ascertain the percent black voting age population that would allow black voters an opportunity to elect their candidates of choice in the challenged 3<sup>rd</sup> Congressional District in Virginia,<sup>2</sup> and the 11<sup>th</sup> Congressional District in Ohio.<sup>3</sup>

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC provides electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom. Attached to the end of this report is a copy of my *curriculum vitae*. I am being compensated at a rate of \$300 an hour for my work in this case.

### **III. County Groupings and Elections Examined**

Conclusions about racially polarized voting and the minority population percentage needed to elect minority-preferred candidates in the context of polarization should be drawn from as many elections as applicable and feasible. It is well-established that racial voting patterns in elections that include minority candidates are the most probative for determining if voting is racially polarized.<sup>4</sup> In addition, elections for the office at issue in a lawsuit – in this

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<sup>1</sup> Bernard Grofman, Lisa Handley and David Lublin, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,” *North Carolina Law Review*, volume 79 (5), June 2001.

<sup>2</sup> *Personhuballah v. Alcorn*, No. 3:13-cv-678 (E.D. Va.).

<sup>3</sup> *Ohio A. Philip Randolph Inst. v. Householder*, No. 1:18-CV-357 (S.D. Ohio).

<sup>4</sup> See, for example, *League of United Latin Am. Citizens, Council No. 4434 v. Clements*, 999 F.2d 831, 864 (5th Cir. 1993); *Nipper v. Smith*, 39 F.3d 1494, 1540 (11th Cir. 1994).

case, state House and state Senate seats – are the most relevant,<sup>5</sup> both for determining if voting is usually polarized and for calculating the percent minority population needed to elect minority-preferred candidates to the office if voting is racially polarized.

I analyzed all contested state legislative general and Democratic primary election contests since 2014 that included an African American candidate in the state Senate and state House county groupings at issue in this case.<sup>6</sup> I also examined all recent statewide state and federal elections – general elections and Democratic primaries – that included an African American candidate. A statewide analysis of voting patterns in two of these contests, the 2016 primary elections for Governor and Supervisor of Public Instruction, indicated that voting was not polarized – both black and white voters supported the winning white candidate.<sup>7</sup> I therefore focused my analysis on the following 2016 statewide contests for each state House and Senate grouping at issue: the general elections for Lieutenant Governor and State Treasurer and the Democratic primaries for Lieutenant Governor, Attorney General, Commissioner of Labor and Treasurer. In addition, I analyzed the 2012 general elections for U.S. President and Lieutenant Governor, and the 2012 Democratic primaries for Lieutenant Governor and Commissioner of Labor. While these contests were polarized statewide, they were not necessarily polarized in every given county grouping. Some of the primary elections considered had three or more candidates; although black voters often coalesced around a single candidate in some of these contests, in other instances they did not and determining a candidate of choice was not possible.

The 13 state House groupings I examined were: (1) Alamance; (2) Anson and Union; (3) Cabarrus, Davie, Montgomery, Richmond, Rowan and Stanly; (4) Cleveland and Gaston; (5) Columbus, Pender and Robeson; (6) Cumberland; (7) Duplin and Onslow; (8) Forsyth and Yadkin; (9) Franklin and Nash; (10) Guilford; (11) Lenoir and Pitt; (12) Mecklenburg; and (13)

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<sup>5</sup> Courts have long held that endogenous elections are more probative in assessing minority vote dilution. Examples include *Bone Shirt V. Hazeltine* 461 F.3d 1011, 1020 (8th Cir. 2006); *Clay v. Bd. of Educ. of City of St. Louis*, 90 F.3d 1357, 1362 (8th Cir. 1996); *Magnolia Bar Ass'n, Inc. v. Lee* 994 F.2d 1143, 1149 (5th Cir. 1993); *Jenkins v. Red Clay Consol. School 25 Dist. Bd. of Educ.* 4 F.3d 1103 (3d Cir. 1993); *Citizens for a Better Gretna v. City of Gretna, La.* 834 F.2d 496, 502 (5th Cir. 1987); *Rodriguez v. Harris Cnty, Texas* 964 19 F. Supp. 2d 686, 759 (S.D. Tex. 2013).

<sup>6</sup> In North Carolina, most black voters choose to vote in Democratic primaries as opposed to Republican primaries.

<sup>7</sup> This report does not address the extent to which the 2016 Democratic primaries for Governor and Supervisor of Public Instruction were racially polarized in any specific county grouping.

Wake. The 5 state Senate county groupings were: (1) Alamance, Guilford and Randolph; (2) Davie and Forsyth; (3) Duplin, Harnett, Johnson, Lee, Nash and Sampson; (4) Franklin and Wake; and (5) Mecklenburg.<sup>8</sup>

#### IV. Success Rates of African American State Legislative Candidates

While African American state legislators have generally been elected from legislative districts with substantial black populations within the county groupings at issue here, these districts are usually not majority black in voting age population and in many cases are below or substantially below 40% in voting age population. Table 1 lists all state Senate districts under the 2017 Senate Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case. The table also shows the results of the 2018 election in each of these districts.

**Table 1: State Senators Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties**

2017 Senate Plan District	Percent Black Voting Age Population	State Senator	Race	Party	Share of two-party vote in 2018 general election	Senate County Grouping
38	48.46%	Mujtaba Mohammed	O	D	81.7%	Mecklenburg
28	43.64%	Gladys Robinson	AA	D	75.2%	Alamance-Guilford-Randolph
37	42.73%	Jeff Jackson	W	D	79.6%	Mecklenburg
21	42.15%	Ben Clark	AA	D	70.9%	Cumberland-Hoke
32	39.18%	Paul Lowe, Jr.	AA	D	72.9%	Davie-Forsyth
40	38.88%	Joyce Waddell	AA	D	75.6%	Mecklenburg
14	38.85%	Dan Blue	AA	D	73.4%	Franklin-Wake
7	33.93%	Louis Milford Pate, Jr.	W	R	53.9%	Lenoir-Wayne
5	32.94%	Don Davis	AA	D	55.3%	Greene-Pitt
19	31.69%	Kirk DeViere	W	D	50.4%	Cumberland-Hoke

If the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 1, then African Americans were able to elect the

<sup>8</sup> Mecklenburg results are reported under the state House grouping but the discussion of course holds for the state Senate as well.

candidate of their choice in 9 of the 10 districts with a BVAP in excess of 30% in relevant Senate county groupings, and the majority of these successful candidates were African Americans. To be clear, Table 1 merely displays past election results; this analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 1 or in other counties not in Table 1. Indeed, Table 1 does not include results for numerous counties across the State because those counties do not currently have state Senate districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit. The results could differ significantly for such other counties.

Table 2 provides the same information as Table 1 for all state House districts under the 2017 House Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case.

**Table 2: State Representative Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties**

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
101	50.8%	Carolyn Logan	AA	D	78.7%	Mecklenburg
43	50.0%	Elmer Floyd	AA	D	74.1%	Cumberland
99	49.5%	Nasif Majeed	AA	D	82.4%	Mecklenburg
107	49.4%	Kelly Alexander	AA	D	100.0%	Mecklenburg
38	48.3%	Yvonne Lewis Holley	AA	D	84.1%	Wake
72	47.5%	Derwin Montgomery	AA	D	79.1%	Forsyth-Yadkin
8	44.9%	Kandie D. Smith	AA	D	64.6%	Lenoir-Pitt
33	44.2%	Rosa U. Gill	AA	D	78.7%	Wake
102	43.9%	Becky Carney	W	D	83.4%	Mecklenburg
58	42.7%	Amos Quick	AA	D	76.8%	Guilford
42	42.2%	Marvin W. Lucas	AA	D	78.1%	Cumberland
25	40.7%	James D. Gailliard	AA	D	53.3%	Franklin-Nash
61	40.3%	Mary Price Harrison	W	D	73.3%	Guilford
60	40.1%	Cecil Brockman	AA	D	69.0%	Guilford
21	39.0%	Raymond Smith Jr.	AA	D	52.6%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
88	38.4%	Mary G. Belk	W	D	75.6%	Mecklenburg
57	38.4%	Ashton Clemmons	W	D	67.6%	Guilford
106	38.0%	Carla Cunningham	AA	D	80.6%	Mecklenburg
12	37.4%	Chris Humphrey	W	R	56.1%	Lenoir-Pitt

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
71	36.6%	Evelyn Terry	AA	D	72.7%	Forsyth-Yadkin
39	35.5%	Darren Jackson	W	D	67.9%	Wake
100	32.1%	John Autry	W	D	70.8%	Mecklenburg
44	31.8%	Billy Richardson	W	D	56.6%	Cumberland
22	31.5%	William Brisson	W	R	43.3%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
92	30.2%	Chaz Beasley	AA	D	70.0%	Mecklenburg

As in the Senate, if the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 2, then African Americans were able to elect the candidate of their choice in 23 of the 25 districts with a BVAP in excess of 30% in relevant House county groupings, and the majority of these successful candidates were African Americans. In addition to the African American state representatives listed above, there are two elected from districts that do not have substantial black populations: Sydney Batch is elected from a 14.3% BVAP district in Wake County, and Brandon Lofton is elected from a 6.2% BVAP district in Mecklenburg County. The same clarifications apply, however, for this analysis as with the Senate. This analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 2 or in other counties not in Table 2. As before, Table 2 does not include results for numerous counties across the State because those counties do not currently have state House districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit, and the results could differ significantly for such other counties.

## V. Analyzing Voting Patterns by Race

In addition to the above analysis, I have conducted a systematic analysis to determine what percent BVAP would be required to provide black voters the opportunity to elect their preferred candidates in state legislative as well as statewide contests in relevant county groupings. For each election analyzed, I report the participation rates of black and white voters, as well as the percentage of black and white support for the black-preferred candidate. If the

contest is polarized, with black and white voters supporting different candidates, I indicate the percentage BVAP required, given the participation rates and voting patterns of black and white voters, for the black-preferred candidate to win in the given election contest.

In this report, I discuss black and white voting behavior but in reality the analysis considers black and non-black voting behavior. While in most areas of the state, non-black voters are mostly white, this is not true of Roberson County, which has a substantial Native American population. I consider not only blacks and non-blacks, but Native Americans and non-Native Americans for this county.

The voting patterns of black and white voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available – the race of the voter is not, of course, obtainable from the ballot. I used a standard statistical technique to produce estimates, King’s ecological inference (EI).<sup>9</sup> Developed by Professor Gary King in the 1990s and later refined, this statistical method utilizes the method of bounds and incorporates maximum likelihood statistics to produce estimates of voting patterns by race.<sup>10</sup> King’s EI has been introduced and accepted in numerous district court proceedings.<sup>11</sup>

The database used for this analysis matched demographic data for each election precinct – white, black and Native American VAP, based on the 2010 census – with the election results for the precinct.<sup>12</sup> The use of VAP data made sense in this case since participation as a product

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<sup>9</sup> The statistical package I used was r for the ecological regression analysis and eiCompare for r for the ecological inference analysis.

<sup>10</sup> The following is an example of how the method of bounds works: if a given precinct has 100 voters, of which 75 are black and 25 are white, and the African American candidate received 80 votes, then at least 55 of the black voters ( $80 - 25$ ) voted for the African American candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters, as anywhere between none of the white voters and all of the white voters could have voted for the candidate.) These bounds are used when calculating EI estimates but not when using ecological regression.

<sup>11</sup> A list of cases in which King’s EI was used can be found in Justin de Benedictis-Kessner, “Evidence in Voting Rights Litigation: Producing Accurate Estimates of Racial Voting Patterns,” *Election Law Journal*, vol.14 (4), 2015. This article also discusses other statistical approaches to analyzing voting patterns by race in voting rights litigation, including homogeneous precinct analysis and ecological regression (ER).

<sup>12</sup> Some of the precinct VAP data could not be matched with election results. The degree to which this occurred varied by county, with some counties assigning early and absentee votes back to the election precinct and other counties not doing this. In addition, if counties combined or split election precincts for an election, these results could not be matched up to the correct demographic data.



of VAP is required to determine the percentage of black VAP necessary for the candidate of choice of black voters to win the given election.

## **VI. Calculating the Percent Black Voting Age Population Needed to Elect Black-Preferred Candidate**

The percentage minority population needed to create a district that provides minorities with an opportunity to elect their candidates of choice varies depending on the specific location of the district – there is no single universal or statewide target that can be applied. A district-specific, functional analysis that considers the participation rates and voting patterns of whites and minorities must be conducted to determine the percentage of the minority population that is needed to provide minority voters with an opportunity to elect candidates of their choice. Relying on the estimates of black and white voting behavior produced by the racial bloc voting analysis I conducted, in each election contest that was polarized, I calculated the percent BVAP needed for the candidate of choice of African Americans to win. When voting is not racially polarized in a given election and area, we need not calculate the percent BVAP needed for the black-preferred candidate to win since black and white voters in that instance support the same candidate.

### **A. Equalizing Turnout**

Black turnout as a percentage of BVAP is generally somewhat lower than white turnout as a percentage of WVAP in the general elections analyzed. For example, according to Table 3, below, in Alamance in the 2016 general election for Lieutenant Governor, 44.7% of blacks of voting age turned out and cast a vote, while 70.6% of whites of voting age cast a vote.<sup>13</sup> Using these turnout percentages, I can calculate the percent black VAP needed to ensure that black voters

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<sup>13</sup> In this example, turnout actually refers to the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the general election – the race for Lieutenant Governor.



comprise at least 50 percent of the voters for this election.<sup>14</sup> The equalizing percentage is calculated mathematically by solving the following equation:

Let  
 $M$  = the proportion of the district's voting age population that is black  
 $W = 1-M$  = the proportion of the district's voting age population that is white  
 $A$  = the proportion of the black voting age population that turned out to vote  
 $B$  = the proportion of the white voting age population that turned out to vote

Therefore,  
 $M(A)$  = the proportion of the population that is black and turned out to vote (1)  
 $(1-M)B$  = the proportion of total population that is white and turned out to vote (2)

To find the value of  $M$  that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for  $M$  algebraically:

$$\begin{aligned} M(A) &= (1 - M)B \\ M(A) &= B - M(B) \\ M(A) + M(B) &= B \\ M(A + B) &= B \\ M &= B / (A+B) \end{aligned}$$

Thus, for the example above,  $A = .447$ ,  $B = .706$  and  $M = .706 / (.447 + .706)$ . Therefore, a 61.2% BVAP district would produce equalized black and white turnout in the 2016 general election in this county grouping.

The equalizing percentage for BVAP in Democratic primaries in North Carolina is much lower than in general elections. This is because most black voters choose to vote in Democratic primaries while white voters tend to divide their votes between the Democratic and Republican primaries. For example, for the same county (Alamance), black turnout as a percentage of BVAP was 14.9 and white turnout as a percentage of WVAP was 8.3.<sup>15</sup> (See Table 3, below.) The percentage BVAP required to equalize black and white turnout in the Democratic primary in this instance is only 35.8%.

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<sup>14</sup> For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.

<sup>15</sup> Turnout in this example is actually the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the statewide Democratic primary – the race for Lieutenant Governor.

Equalizing the number of black and white voters who vote in an election would only be necessary to ensure that minority voters had the opportunity to elect their candidates of choice if white voters are rarely willing to vote for black-preferred candidates. If a sufficient percentage of white voters, consistently demonstrate a willingness to support black-preferred candidates, then the number of black voters need not equal the number of white voters who vote in a given election – white voters will “crossover” and help elect the black-preferred candidates. A district-specific, functional analysis should take into account not only differences in the turnout rates of black and white voters, but also the voting patterns of white and black voters.<sup>16</sup>

## **B. Incorporating Minority Cohesion and White Crossover Voting**

Estimates of voting patterns by race for of the elections analyzed for this report indicate that many were not racially polarized – black voters and white voters supported the same candidates. When black and white voters support different candidates, however, close attention must be paid not only to the turnout rates of black and white voters, but to the percentage of white voters who are willing to support black-preferred candidates, as well as how cohesive black voters are in their support of these candidates. When there are very high levels of minority cohesion and consistent, sufficient white crossover voting, the district need not be majority black in composition to provide black voters with a realistic opportunity to elect their candidates of choice to office.

To illustrate this mathematically, consider a district that has 2000 persons of voting age, 50% of whom are black and 50% of whom are white. Using the estimates of black and white turnout and support for the black-preferred candidate in the 2016 general election in Alamance County for Lieutenant Governor, black turnout is lower than white turnout: 44.7% of blacks of voting age and 70.6% of whites of voting age turned out to vote. (See Table 3, below.) This means that, for our illustrative election, there will be 447 black voters and 706 white voters. As indicated by Table 3, 99.3% of the black voters supported the black-preferred candidate (Linda

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<sup>16</sup> For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,” *North Carolina Law Review*, volume 79 (5), June 2001.

Coleman) and 31.2% of the white voters supported her in this election.<sup>17</sup> Thus, in our example, black voters will cast 444 of their 447 votes for the black-preferred candidate and their other 3 votes for the other candidates; white voters will cast 220 of their 706 votes for the black-preferred candidate and 486 votes for the other candidates. The black-preferred candidate will receive 57.6% of the vote under these conditions:

<b>Black and White Voters</b>	<b>Votes for Black-Preferred Candidate</b>	<b>Votes for Other Candidates</b>
Black 1000 x .447 = 447	447 x .993 = 444	447 x .007 = 3
White 1000 x .706 = <u>706</u>	706 x .312 = <u>220</u>	706 x .688 = <u>486</u>
1153	664	486

The black-preferred candidate will garner a total of 664 votes (444 from black voters and 220 from white voters), while the other candidates will receive 486 votes (3 from black voters and 486 from white voters). The black-preferred candidate will win the election with 664 of the 1153 votes cast in the contest, or 57.6% of the vote in this hypothetical 50% black VAP district. The black-preferred candidate in this election actually received only 40.5% of the vote in Alamance County because the county is slightly less than 19% black in VAP. But as the column labeled “percent of vote B-P cand would have received if district was 50% black VAP” indicates, Coleman would have received 57.6% of the vote if the BVAP was 50%. And, as the last column in Table 3 indicates, in a district with at least 37.6% BVAP, the black-preferred candidate would win.<sup>18</sup>

The Democratic primary for Lieutenant Governor in 2016 in Alamance was not racially polarized. (There were 4 candidates and thus, while Coleman received only 43% of the white vote, she was the top choice of white voters; she received 87% of the black votes cast.) However, the 2016 Democratic primary race for Attorney General was polarized in the county so this will serve as the basis for the illustrative example. (See Table 3, below.) The turnout rate for

<sup>17</sup> The 2016 general election for Lieutenant Governor included three candidates: Dan Forest, a white Republican, Linda Coleman, an African-American Democrat, and Libertarian candidate Jacki Cole. Dan Forest won the election with 51.8% of the statewide vote.

<sup>18</sup>

<b>Black and White Voters</b>	<b>Votes for Black-Preferred Candidate</b>	<b>Votes for Other Candidates</b>
Black 376 x .447 = 168	168 x .993 = 167	168 x .007 = 1
White 624 x .706 = <u>441</u>	441 x .312 = <u>138</u>	441 x .688 = <u>303</u>
609	305	304

blacks was 14.4%; for whites it was 8.4%. Marcus Williams, the African American candidate, received 99.4% of the black vote and 39.0% of the white vote. However, because black turnout was so much higher than white turnout (many white voters cast ballots in the Republican primary rather than the Democratic primary), Williams would have received over 77% of the vote (176 out of 228 votes) in a 50% BVAP district:

<b>Black and White Voters</b>	<b>Black-Preferred Candidate Votes</b>	<b>White-Preferred Candidate Votes</b>
Black 1000 x .144 = 144	144 x .994 = 143	144 x .006 = 1
White 1000 x .084 = <u>84</u>	84 x .390 = <u>33</u>	84 x .610 = <u>67</u>
228	176	52

Williams carried Alamance County, which has a 18.9% BVAP, with 51.1% of the vote and would have won the primary in any district with at least 11.5% BVAP under these conditions.

## VII. Results of Analysis

Tables 3 through 22 report the results of my racial bloc voting analysis and, if the contest is racially polarized, indicate the percentage of vote a black-preferred candidate would receive in each House and Senate grouping of interest, given the turnout rates of blacks and whites and the degree of black cohesion and white crossover voting for each election, in a 50%, 45%, 40% and 35% black VAP district. Each table considers a different state House county grouping (Tables 3-15) or state Senate county grouping (Tables 16-19). In each table, the first column indicates the relevant election, the second column indicates either the BVAP of the House or Senate district (for state legislative elections) or the BVAP of the entire counties that comprise the county grouping (for the statewide elections analyzed). The third and fourth columns then reflect the race and share of the vote received by the candidate of choice of African Americans.

Of significance, the column with the headers “black voters: B-P” and “white voters: B-P” represent my calculations of the share of black voters and white voters who supported the black-preferred candidate (i.e. the “B-P” candidate) in that election. If the numbers in these columns are both greater than 50%, it means that voting in that particular election was not racially polarized because a majority of blacks and whites both supported the candidate of choice of

African Americans. The final column calculates that percent BVAP needed for the black-preferred candidate to have won the election if that election was racially polarized.<sup>19</sup>

In addition to analyzing polarized voting across each of the county groupings at issue, I also analyzed racially polarized voting within specific individual counties, including Forsyth County (Table 20) and Pitt County (Table 21). Moreover, I conducted a racial polarization analysis for Robeson County, but for Native Americans rather than African Americans (Table 22). For this analysis, I divided all voters into Native Americans and non-Native Americans and then analyzed whether and to what extent voting was polarized between these two groups.

## **VIII. Conclusion**

My analysis of voting patterns by race in recent statewide and state legislative contests in select North Carolina state House and Senate county groupings indicates that a number of election contests were not racially polarized. When the election contest was polarized, I used the estimates of black and white turnout, and black and white votes for the black-preferred candidate to calculate the percent BVAP required for black voters to elect their preferred candidate in that election. The black percentage needed varies both by grouping – hence the importance of conducting a district-specific analysis – and the contest considered. In some county groupings such as Guilford, Cumberland, Forsyth-Yadkin, and Mecklenburg in the House, as well as Franklin-Wake, Davie-Forsyth, and Mecklenburg in the Senate, there are many elections that were not racially polarized because a majority of whites supported the candidate of choice of African Americans. Substantially greater white bloc voting was found in other county groupings.

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<sup>19</sup> The column titled “actual vote of B-P candidate” represent the raw percentage of the vote received by that candidate as reported by the State Board of Elections, and not the share of the two-party vote.

Table 3

House Grouping: Alamance	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
2016														
2016 Lt Governor	18.9	AA	40.5	44.7	99.3	0.7	70.6	31.2	68.8	57.6	54.4	51.4	48.5	37.6
2016 Treasurer	18.9	AA	43.2	43.2	99.9	0.1	68.1	34.5	65.5	59.9	56.8	53.9	51.2	32.9
2014														
none														
2012														
2012 President	18.9	AA	42.7	46.0	99.5	0.5	67.4	33.1	66.9	60.0	56.9	53.9	50.9	33.3
2012 Lt Governor	18.9	AA	43.3	45.3	99.9	0.1	65.2	33.9	66.1	61.0	57.8	54.8	51.9	31.7
Democratic primaries														
2018														
State House 64	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
2016														
2016 Lt Governor	18.9	AA	52.3	14.9	87.0	13.0	8.3	43.0	57.0	71.3	69.2	67.0	64.6	not polarized, 1st choice same
2016 Attn General	18.9	AA	51.1	14.4	99.4	0.6	8.4	39.0	61.0	77.1	74.3	71.2	68.0	11.5
2016 Comm of Labor	18.9	AA	50.3	14.1	83.6	16.4	8.4	40.7	59.3	67.6	65.5	63.4	61.1	14.2
2016 Treasurer	18.9	AA	57.4	14.7	60.2	39.8	8.4	54.7	45.3	58.2	57.9	57.7	57.4	not polarized
2014														
none														
2012														
2012 Lt Governor	18.9	AA	49.2	10.3	52.8	47.2	9.7	48.6	51.4	50.8	50.6	50.3	50.1	32.0
2012 Comm of Labor	18.9	AA	33.5	10.3	58.6	41.4	9.1	26.5	73.5	43.5	41.9	40.3	38.7	70.7

Table 4

House Grouping: Anson and Union	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	32.2	55.8	100.0	0.0	75.1	23.1	76.9	55.9	52.2	48.6	45.1	42.0
2016 Treasurer	16.5	AA	34.6	54.6	99.6	0.4	73.4	27.3	72.7	58.1	54.7	51.3	48.0	38.1
2014														
none														
2012														
2012 President	16.5	AA	37.4	34.7	98.3	1.7	70.6	30.0	70.0	52.5	49.6	46.9	44.3	45.7
2012 Lt Governor	16.5	AA	39.1	33.3	99.0	1.0	68.0	32.0	68.0	54.0	51.2	48.5	46.0	42.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	40.8	23.0	87.4	12.6	6.2	10.6	89.4	71.1	68.4	65.3	61.8	22.1
2016 Attn General	16.5	AA	58.3	21.3	92.7	7.3	6.1	48.1	51.9	82.8	81.1	79.3	77.2	1.3
2016 Comm of Labor	16.5	AA	55.3	22.9	63.5	36.5	5.9	49.7	50.3	60.7	60.2	59.7	59.0	0.6
2016 Treasurer	16.5	AA	56.5	19.4	84.3	15.7	5.9	47.6	52.4	75.7	74.4	72.8	71.1	2.1
2014														
none														
2012														
2012 Lt Governor	16.5	AA	47.2	25.0	63.2	36.8	4.6	34.7	65.3	58.8	58.0	57.0	55.9	17.6
2012 Comm of Labor	16.5	AA	37.2	25.0	51.7	48.3	4.1	26.9	73.1	48.2	47.6	46.8	45.9	69.0

Table 5

House Grouping: Cabarrus, Davie, Montgomery, Richmond, Rowan, and Stanly	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B- P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 82	14.1	AA	47.3	34.8	99.9	0.1	64.2	38.9	61.1	60.3	57.6	55.1	52.7	29.1
2016														
2016 Lt Governor	15.5	AA	32.9	34.7	100.0	0.0	67.7	26.7	73.3	51.5	48.4	45.4	42.6	47.6
2016 Treasurer	15.5	AA	36.1	36.1	99.5	0.5	65.7	29.2	70.8	54.1	51.0	48.0	45.3	43.3
2014														
none														
2012														
2012 President	15.5	AA	37.6	58.9	99.6	0.4	62.4	28.1	71.9	62.8	59.3	55.7	52.2	31.9
2012 Lt Governor	15.5	AA	39.1	55.0	97.8	2.2	60.3	30.6	69.4	62.7	59.3	56.0	52.7	30.8
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	15.5	AA	45.2	14.7	73.4	26.6	6.0	37.6	62.4	63.0	61.5	59.8	58.0	17.8
2016 Attn General	15.5	AA	55.5	14.0	87.9	12.1	5.8	46.6	53.4	75.8	74.0	72.1	69.9	3.6
2016 Comm of Labor	15.5	AA	53.6	12.5	78.2	21.8	5.7	45.8	54.2	68.1	66.6	65.0	63.3	6.4
2016 Treasurer	15.5	AA	53.6	12.2	74.5	25.5	5.8	48.8	51.2	66.2	65.1	63.8	62.4	2.3
2014														
none														
2012														
2012 Lt Governor	15.5	AA	55.0	22.4	55.1	44.9	7.0	56.0	44.0	55.3	55.3	55.4	55.4	not polarized
2012 Comm of Labor	15.5	AA	34.0	20.2	51.6	48.4	7.0	29.2	70.8	45.8	44.9	43.9	42.8	81.8



Table 6

House Grouping: Cleveland and Gaston	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 110	15.3	AA	32.2	29.5	95.7	4.3	52.7	27.8	72.2	52.2	49.1	46.3	43.5	46.5
State Senate 43	14.8	AA	33.8	20.8	100.0	0.0	29.8	26.4	73.6	56.7	53.2	49.8	46.5	40.3
2016														
2016 Lt Governor	16.2	AA	31.8	37.1	99.6	0.4	63.9	23.1	76.9	51.2	47.7	44.4	41.3	48.3
2016 Treasurer	16.2	AA	36.0	37.2	99.6	0.4	61.8	27.0	73.0	54.3	51.0	47.8	44.8	43.5
2014														
none														
2012														
2012 President	16.2	AA	37.6	45.7	99.8	0.2	59.7	28.1	71.9	59.2	55.7	52.3	49.0	36.5
2012 Lt Governor	16.2	AA	39.1	43.7	100.0	0.0	57.9	30.0	70.0	60.1	56.7	53.4	50.2	34.6
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.2	AA	44.4	17.7	81.4	18.6	4.5	23.5	76.5	69.7	67.7	65.4	62.8	17.7
2016 Attn General	16.2	AA	57.5	17.7	95.5	4.5	4.4	29.6	70.4	82.4	80.1	77.6	74.7	10.0
2016 Comm of Labor	16.2	AA	53.8	17.3	64.3	35.7	4.3	49.7	50.3	61.4	60.9	60.3	59.7	0.5
2016 Treasurer	16.2	AA	52.6	17.3	59.5	40.5	4.4	47.2	52.8	57.0	56.6	56.1	55.6	7.0
2014														
none														
2012														
2012 Lt Governor	16.2	AA	59.0	13.6	55.1	44.9	7.5	58.8	41.2	56.4	56.6	56.8	57.0	not polarized
2012 Comm of Labor	16.2	AA	32.0	12.8	40.8	59.2	7.0	31.3	68.7	37.4	37.0	36.5	36.0	no clear B-P cand

Table 7

House Grouping: Columbus, Pender and Robeson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 46	24.7	AA	36.7	27.0	82.3	17.7	36.3	26.3	73.7	50.2	47.5	44.9	42.3	49.7
State Senate 13	26.4	AA	37.5	30.5	88.3	11.7	34.7	20.8	79.2	52.4	49.0	45.7	42.5	46.4
2016														
2016 Lt Governor	24.5	AA	43.0	48.4	92.4	7.6	47.5	28.0	72.0	60.5	57.3	54.1	50.8	33.7
2016 Treasurer	24.5	AA	47.0	45.8	94.1	5.9	47.1	33.9	66.1	63.6	60.6	57.6	54.6	27.3
2014														
none														
2012														
2012 President	24.5	AA	49.9	63.9	93.8	6.2	46.3	36.6	63.4	69.8	66.9	64.0	61.0	18.1
2012 Lt Governor	24.5	AA	57.4	61.8	99.6	0.4	44.7	46.0	54.0	77.1	74.4	71.7	68.9	5.5
Democratic primaries														
2018														
State Senate 13	26.4	AA	69.2	11.3	94.4	5.6	5.4	52.3	47.7	80.8	78.9	76.8	74.6	not polarized
2016														
2016 Lt Governor	24.5	AA	41.5	12.8	59.8	40.2	8.7	31.5	68.5	48.3	47.0	45.5	44.0	56.2
2016 Attn General	24.5	AA	60.1	12.7	86.3	13.7	8.8	46.5	53.5	70.0	68.0	66.0	63.9	6.3
2016 Comm of Labor	24.5	AA	38.5	12.9	51.6	48.4	8.7	32.6	67.4	43.9	43.0	42.0	41.0	88.0
2016 Treasurer	24.5	AA	64.8	12.9	81.5	18.5	8.7	52.7	47.3	69.9	68.5	67.0	65.5	not polarized
2014														
State Senate 13	26.4	AA	27.3	20.3	46.5	53.5	12.8	19.3	80.7	36.0	34.7	33.3	31.8	4 cand, no clear B-P cand
2012														
Lt Governor	24.5	AA	50.5	25.6	54.5	45.5	12.0	50.2	49.8	53.1	52.9	52.7	52.5	not polarized
Comm of Labor	24.5	AA	27.9	21.6	39.7	60.3	11.5	26.8	73.2	35.2	34.6	34.0	33.3	no clear B-P cand

Table 8A

Table 611

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 42	42.2	AA	76.1	40.2	100.0	0.0	37.8	56.8	43.2	79.1	76.9	74.7	72.5	not polarized
State House 43	50.0	AA	74.1	36.4	99.3	0.7	36.8	50.1	49.9	74.6	72.1	69.7	67.2	not polarized
2016														
2016 Lt Governor	37.1	AA	55.8	47.3	99.5	0.5	60.2	32.7	67.3	62.1	58.8	55.7	52.6	30.8
2016 Treasurer	37.1	AA	58.0	47.3	99.9	0.1	58.9	36.6	63.4	64.8	61.7	58.7	55.7	25.1
State Senate 19	22.5	AA	43.6	48.3	83.8	16.2	57.4	29.4	70.6	54.3	51.6	49.0	46.4	42.0
2014														
none														
2012														
2012 President	37.1	AA	59.5	55.7	99.9	0.1	55.8	39.7	60.3	69.8	66.8	63.8	60.7	17.1
2012 Lt Governor	37.1	AA	61.6	55.5	99.6	0.4	54.3	42.4	57.6	71.3	68.4	65.6	62.7	13.0

Table 8B

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 43	50	AA	79.2	7.3	94.4	5.6	6.8	65.0	35.0	80.2	78.7	77.3	75.8	not polarized
2016														
2016 Lt Governor	37.1	AA	59.1	15.4	72.1	27.9	9.9	48.6	51.4	62.9	61.8	60.6	59.3	not polarized, 1st choice same
2016 Attn General	37.1	AA	66.7	15.3	90.7	9.3	9.8	43.2	56.8	72.2	69.8	67.4	64.9	9.7
2016 Comm of Labor	37.1	AA	46.0	15.4	63.1	36.9	9.8	34.8	65.2	52.1	50.7	49.3	47.8	42.5
2016 Treasurer	37.1	AA	52.3	15.3	74.5	25.5	11.0	39.2	60.8	59.7	58.0	56.2	54.3	24.1
2014														
none														
2012														
2012 Lt Governor	37.1	AA	70.7	11.9	73.5	26.5	12.8	68.5	31.5	70.9	70.7	70.4	70.2	not polarized
2012 Comm of Labor	37.1	AA	42.8	11.5	43.7	56.3	10.0	42.2	57.8	43.0	42.9	42.9	42.8	not polarized, 1st choice same

Table 9

House Grouping: Duplin and Onslow	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4	22.6	AA	34.9	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
2016														
2016 Lt Governor	18.5	AA	33.5	32.4	99.2	0.8	53.3	18.0	82.0	48.7	45.0	41.4	38.0	51.7
2016 Treasurer	18.5	AA	35.7	32.1	99.6	0.4	51.2	21.1	78.9	51.4	47.7	44.2	40.9	48.2
2014														
none														
2012														
2012 President	18.5	AA	38.3	47.6	98.7	1.3	47.0	22.7	77.3	60.9	57.1	53.3	49.5	35.6
2012 Lt Governor	18.5	AA	41.9	46.1	97.3	2.7	44.9	28.0	72.0	63.1	59.6	56.2	52.7	31.2
Democratic primaries														
2018														
2016														
2016 Lt Governor	18.5	AA	46.7	11.1	91.4	8.6	4.9	32.5	67.5	73.4	70.8	67.9	64.9	15.7
2016 Attn General	18.5	AA	64.6	11.0	92.8	7.2	4.6	43.4	56.6	78.2	76.1	73.8	71.2	6.1
2016 Comm of Labor	18.5	AA	51.0	11.1	71.5	28.5	4.6	46.0	54.0	64.0	62.9	61.7	60.4	7.2
2016 Treasurer	18.5	AA	54.9	11.2	94.9	5.1	4.6	41.9	58.1	79.5	77.2	74.7	72.0	6.9
2014														
none														
2012														
2012 Lt Governor	18.5	AA	52.2	19.3	59.9	40.1	4.8	47.6	52.4	57.5	57.0	56.6	56.0	5.7
2012 Comm of Labor	18.5	AA	24.8	18.9	39.8	60.2	4.2	28.5	71.5	37.7	37.4	37.0	36.5	no clear B-P cand

Table 10

House Grouping: Forsyth and Yadkin	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.6	AA	48.2	40.5	99.3	0.7	70.9	29.1	70.9	54.6	51.5	48.5	45.6	42.6
2016 Treasurer	23.6	AA	47.7	40.1	99.5	0.5	69.6	28.2	71.8	54.3	51.0	48.0	45.1	43.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.6	AA	50.6	48.9	98.8	1.2	47.0	32.7	67.3	66.4	63.1	59.8	56.4	25.4
2012 Lt Governor	23.6	AA	50.9	46.4	98.5	1.5	44.9	34.3	65.7	66.9	63.7	60.5	57.3	23.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.6	AA	55.6	14.6	81.3	18.7	11.4	44.3	55.7	65.1	63.2	61.3	59.4	not polarized, 1st choice same
2016 Attn General	23.6	AA	45.1	14.5	66.2	33.8	11.0	38.0	62.0	54.0	52.6	51.2	49.7	36.0
2016 Comm of Labor	23.6	AA	60.5	14.0	84.0	16.0	11.3	52.0	48.0	69.7	68.1	66.5	64.8	not polarized
2016 Treasurer	23.6	AA	59.1	14.6	71.1	28.9	10.5	53.2	46.8	63.6	62.7	61.8	60.9	not polarized
2014														
none														
2012														
2012 Lt Governor	23.6	AA	58.2	16.1	75.3	24.7	9.3	50.8	49.2	66.3	65.2	63.9	62.6	not polarized
2012 Comm of Labor	23.6	AA	38.9	15.1	51.6	48.4	8.9	33.5	66.5	44.9	44.0	43.1	42.1	85.9

Table 11

House Grouping: Franklin and Nash	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 25	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
2016														
2016 Lt Governor	33.0	AA	46.5	51.3	99.9	0.1	70.5	24.0	76.0	56.0	52.3	48.8	45.4	41.7
2016 Treasurer	33.0	AA	48.7	53.5	100.0	0.0	68.3	26.8	73.2	59.0	55.4	51.9	48.5	37.2
State House 7	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	33.0	AA	48.6	53.8	99.1	0.9	64.4	26.6	73.4	59.6	56.0	52.5	49.1	36.3
2012 Lt Governor	33.0	AA	51.2	52.5	99.1	0.9	62.8	30.3	69.7	61.6	58.2	54.9	51.7	32.4
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	33.0	AA	66.5	17.4	94.9	5.1	8.6	35.7	64.3	75.3	72.6	69.7	66.6	13.6
2016 Attn General	33.0	AA	39.5	17.9	63.1	36.9	8.1	29.5	70.5	52.6	51.1	49.5	47.8	41.5
2016 Comm of Labor	33.0	W	74.8	17.0	72.5	27.5	8.8	75.7	24.3	73.6	73.7	73.9	74.1	not polarized
2016 Treasurer	33.0	AA	65.1	17.7	88.0	12.0	8.7	37.4	62.6	71.3	69.0	66.5	63.9	14.0
2014														
none														
2012														
2012 Lt Governor	33.0	AA	58.2	16.8	68.3	31.7	10.3	50.8	49.2	61.6	60.8	59.9	59.0	not polarized
2012 Comm of Labor	33.0	AA	36.2	16.0	50.8	49.2	9.7	19.1	80.9	38.8	37.3	35.7	34.0	95.9

Table 12A

House Grouping: Guildford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 58	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
2016														
2016 Lt Governor	32.1	AA	56.6	44.1	98.7	1.3	78.4	42.8	57.2	62.9	60.4	58.0	55.8	20.8
2016 Treasurer	32.1	AA	57.6	42.1	99.3	0.7	76.9	44.9	55.1	64.1	61.7	59.4	57.3	15.9
State Senate 28	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	32.1	AA	57.8	49.6	99.9	0.1	76.4	43.7	56.3	65.8	63.2	60.7	58.3	16.3
2012 Lt Governor	32.1	AA	58.0	47.3	100.0	0.0	74.0	44.3	55.7	66.0	63.4	60.9	58.6	15.1



Table 12B

House Grouping: Guilford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 58	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	32.1	AA	57.9	19.2	71.8	28.2	13.5	49.2	50.8	62.5	61.4	60.2	59.0	not polarized
2016 Attn General	32.1	AA	54.6	18.9	86.5	13.5	13.2	38.3	61.7	66.7	64.3	61.8	59.3	18.3
2016 Comm of Labor	32.1	AA	61.3	18.9	78.5	21.5	12.3	49.6	50.4	67.1	65.7	64.2	62.7	0.9
2016 Treasurer	32.1	AA	54.3	18.4	63.7	36.3	12.5	46.2	53.8	56.6	55.8	54.9	53.9	15.9
State House 58	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	32.1	AA	58.6	14.6	66.5	33.5	12.4	54.3	45.7	60.9	60.3	59.7	59.0	not polarized
2012 Comm of Labor	32.1	AA	39.2	13.7	52.6	47.4	10.6	30.9	69.1	43.1	42.1	40.9	39.8	85.0

Table 13

House Grouping: Lenoir and Pitt	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black- preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
State House 12	37.4	AA	43.9	27.0	96.6	3.4	45.8	24.9	75.1	51.5	48.2	45.1	42.2	47.7
2016														
2016 Lt Governor	34.2	AA	50.2	39.4	97.9	2.1	65.1	42.8	57.2	63.6	61.0	58.6	56.3	19.9
2016 Treasurer	34.2	AA	52.6	38.8	98.6	1.4	63.2	44.9	55.1	65.3	62.9	60.5	58.2	14.6
2014														
none														
2012														
2012 President	34.2	AA	52.3	52.3	99.0	1.0	60.6	30.7	69.3	62.3	59.0	55.6	52.4	31.3
2012 Lt Governor	34.2	AA	52.9	51.6	98.6	1.4	59.3	32.0	68.0	63.0	59.7	56.5	53.2	29.9
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	34.2	AA	53.6	17.2	73.7	26.3	7.8	34.2	65.8	61.4	59.6	57.7	55.6	23.2
2016 Attn General	34.2	AA	61.1	16.5	86.9	13.1	7.2	32.5	67.5	70.4	68.0	65.4	62.5	17.1
2016 Comm of Labor	34.2	W	46.5	16.7	55.6	44.4	7.7	38.0	62.0	50.0	49.3	48.4	47.5	49.7
2016 Treasurer	34.2	AA	54.6	16.5	53.6	46.4	7.2	52.7	47.3	53.3	53.3	53.2	53.2	not polarized
2014														
none														
2012														
2012 Lt Governor	34.2	AA	61.1	18.1	69.2	30.8	10.2	52.3	47.7	63.1	62.3	61.5	60.6	not polarized
2012 Comm of Labor	34.2	AA	29.9	18.0	35.2	64.8	9.5	26.1	73.9	32.1	31.6	31.2	30.7	no clear B-P cand

Table 14A

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 92	30.2	AA	70.0	26.4	98.3	1.7	65.5	63.2	36.8	73.3	71.9	70.6	69.5	not polarized
State House 99	49.5	AA	82.4	42.9	98.0	2.0	51.4	66.8	33.2	81.0	79.5	78.0	76.5	not polarized
State House 101	50.8	AA	78.7	34.5	98.5	1.5	62.4	61.3	38.7	74.5	72.9	71.3	69.8	not polarized
State House 104	6.2	AA	51.8	20.0	99.6	0.4	64.5	51.9	48.1	63.2	61.6	60.1	58.7	not polarized
State House 106	38.0	AA	80.6	28.1	99.0	1.0	55.8	72.6	27.4	81.4	80.3	79.2	78.2	not polarized
State Senate 40	38.9	AA	75.6	20.8	99.3	0.7	59.1	63.3	36.7	72.7	71.3	70.1	69.0	not polarized
2016														
2016 Lt Governor	30.2	AA	58.4	39.9	98.5	1.5	78.1	46.1	53.9	63.8	61.5	59.4	57.4	not polarized
2016 Treasurer	30.2	AA	58.4	42.2	99.0	1.0	74.6	47.9	52.1	66.4	64.1	61.9	59.8	7.0
State House 92	18.2	AA	54.4	39.8	96.1	3.9	56.6	45.2	54.8	66.2	63.8	61.4	59.2	12.9
State House 101	51.3	AA	76.0	50.7	99.2	0.8	69.1	53.6	46.4	72.9	70.7	68.6	66.5	not polarized
State House 105	9.5	AA	44.7	42.3	97.5	2.5	63.2	41.1	58.9	63.7	61.1	58.5	56.0	21.9
State Senate 38	52.5	AA	79.1	45.4	98.7	1.3	61.9	57.9	42.1	75.2	73.2	71.3	69.5	not polarized
State Senate 40	51.8	AA	82.5	53.8	98.5	1.5	42.6	56.1	43.9	79.8	77.6	75.5	73.3	not polarized
2014														
State House 92	18.2	AA	47.5	26.9	95.2	4.8	33.8	36.7	63.3	62.6	59.8	57.0	54.2	27.0
State House 106	51.1	AA	86.6	30.8	89.2	10.8	30.1	78.6	21.4	84.0	83.4	82.9	82.4	not polarized
State Senate 38	52.5	AA	79.7	31.6	99.2	0.8	35.2	60.4	39.6	78.8	76.8	74.9	73.0	not polarized
State Senate 41	13.2	AA	39.5	25.5	98.5	1.5	49.9	34.4	65.6	56.1	53.3	50.7	48.2	38.6
2012														
2012 President	30.2	AA	60.8	43.4	98.7	1.3	73.9	51.9	48.1	69.2	67.1	65.1	63.1	not polarized
2012 Lt Governor	30.2	AA	59.8	42.9	99.9	0.1	70.7	50.1	49.9	68.9	66.6	64.4	62.4	not polarized

Table 14B

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 99	49.5	AA	57.3	9.8	73.8	26.2	5.9	44.2	55.8	62.7	61.3	59.8	58.2	12.8
State House 101	50.8	AA	50.0	7.8	60.2	39.8	6.5	39.4	61.5	50.5	49.5	48.4	47.3	47.4
State House 106	38.0	AA	88.9	9.4	91.3	8.7	7.5	85.2	14.8	88.6	88.3	88.0	87.7	not polarized
State Senate 38	48.5	O	51.9	12.1	60.3	39.7	5.4	32.6	67.4	51.8	50.5	49.2	47.7	43.0
2016														
2016 Lt Governor	30.2	AA	55.2	19.8	65.2	34.8	11.0	48.6	51.4	59.3	58.5	57.7	56.8	not polarized
2016 Attn General	30.2	AA	55.7	19.6	86.6	13.4	10.9	31.8	68.2	67.0	64.4	61.7	58.8	21.7
2016 Comm of Labor	30.2	AA	57.0	16.9	75.7	24.3	11.2	46.8	53.2	64.2	62.8	61.3	59.8	7.6
2016 Treasurer	30.2	AA	52.7	19.0	59.6	40.4	10.7	47.1	52.9	55.1	54.5	53.9	53.2	14.5
State House 101	51.3	AA	78.6	14.1	92.5	7.5	9.1	50.3	49.7	75.9	73.9	71.7	69.5	not polarized
State House 107	52.5	AA	90.1	26.0	93.4	6.6	10.5	85.7	14.3	91.2	90.9	90.5	90.1	not polarized
State Senate 38	52.5	AA	52.1	18.9	54.3	45.7	13.1	48.6	51.4	52.0	51.7	51.4	51.1	18.4
State Senate 40	51.8	AA	64.7	19.3	66.7	33.3	9.1	63.2	36.8	65.6	65.4	65.3	65.1	not polarized
2014														
State Senate 40	51.8	AA	41.9	10.1	48.5	51.5	6.1	27.5	72.5	40.6	39.6	38.5	37.4	no clear B-P cand
2012														
2012 Lt Governor	30.2	AA	67.6	11.7	61.5	38.5	9.2	70.3	29.7	65.4	65.8	66.3	66.7	not polarized
2012 Comm of Labor	30.2	AA	40.7	11.7	54.3	45.7	7.2	30.5	69.5	45.2	44.1	42.9	41.6	73.6

Table 15A

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	20.7	AA	54.7	56.9	98.6	1.4	67.8	46.2	53.8	70.1	67.5	65.0	62.5	not polarized
2016 Treasurer	20.7	AA	56.1	61.1	99.2	0.8	65.3	48.3	51.7	72.9	70.4	67.9	65.4	3.6
State House 38	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	20.7	AA	55.1	41.6	99.3	0.7	70.7	47.0	53.0	66.4	64.0	61.7	59.6	9.4
2012 Lt Governor	20.7	AA	55.3	39.8	99.7	0.3	68.7	47.3	52.7	66.5	64.2	61.9	59.8	8.6

Table 15B

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	20.7	AA	60.3	22.4	82.2	17.8	17.8	51.4	48.6	68.6	67.0	65.5	63.8	not polarized
2016 Attn General	20.7	AA	35.0	22.0	60.4	39.6	17.8	28.4	71.6	46.1	44.5	42.9	41.2	62.7
2016 Comm of Labor	20.7	W	72.2	18.8	72.1	27.9	21.9	74.7	25.3	73.5	73.6	73.8	73.9	not polarized
2016 Treasurer	20.7	AA	63.2	19.9	89.2	10.8	20.7	52.9	47.1	70.7	68.9	67.1	65.3	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	20.7	AA	59.7	19.4	68.0	32.0	16.6	53.7	46.3	61.4	60.7	60.0	59.2	not polarized
2012 Comm of Labor	20.7	AA	37.9	19.2	54.1	45.9	13.6	31.3	68.7	44.6	43.5	42.4	41.1	76.4

Table 16A

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64 (Alamance)	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
State House 58 (Guilford)	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60 (Guilford)	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28 (Guilford)	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
insert														
2016														
2016 Lt Governor	24.8	AA	47.8	43.6	96.6	3.4	72.2	38.1	61.9	60.1	57.4	54.9	52.5	29.7
2016 Treasurer	24.8	AA	49.2	43.8	99.5	0.5	70.1	42.3	57.7	64.3	61.6	59.1	56.7	19.9
State Senate 28 (Guilford)	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61 (Guilford)	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	24.8	AA	49.8	45.0	99.2	0.8	67.8	40.0	60.0	63.6	60.8	58.2	55.6	23.4
2012 Lt Governor	24.8	AA	50.2	43.5	98.4	1.6	66.9	43.5	56.5	65.1	62.6	60.1	57.7	17.1

Table 16B

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 64 (Alamance)	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
State House 58 (Guilford)	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	24.8	AA	56.0	21.2	74.6	25.4	11.2	47.0	53.0	65.1	63.8	62.4	60.9	not polarized
2016 Attn General	24.8	AA	53.1	20.9	87.9	12.1	10.9	38.5	61.5	71.0	68.7	66.2	63.6	13.7
2016 Comm of Labor	24.8	W	58.8	20.6	79.5	20.5	10.3	49.5	50.5	69.5	68.1	66.6	65.1	0.8
2016 Treasurer	24.8	AA	54.2	20.5	61.3	38.7	10.5	54.3	45.7	58.9	58.6	58.3	57.9	not polarized
State House 58 (Guilford)	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58 (Guilford)	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60 (Guilford)	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28 (Guilford)	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	24.8	AA	56.7	16.9	66.7	33.3	9.8	52.1	47.9	61.3	60.6	59.9	59.1	not polarized
2012 Comm of Labor	24.8	AA	36.8	15.7	54.4	45.6	8.4	27.8	72.2	45.1	43.9	42.6	41.1	73.0



Table 17

Table 17

Senate Grouping: Davie and Forsyth	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71 (Forsyth)	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72 (Forsyth)	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32 (Forsyth)	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.8	AA	48.2	32.6	99.4	0.6	72.9	34.8	65.2	54.8	52.1	49.6	47.3	40.8
2016 Treasurer	23.8	AA	41.2	29.9	100.0	0.0	71.2	34.3	65.7	53.7	51.1	48.7	46.4	42.8
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.8	AA	50.5	47.8	99.3	0.7	69.8	40.6	59.4	64.5	61.7	59.0	56.4	21.8
2012 Lt Governor	23.8	AA	50.7	46.4	99.1	0.9	69.5	42.3	57.7	65.0	62.4	59.8	57.3	19.0
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.8	AA	55.6	20.0	79.9	20.1	11.4	45.2	54.8	67.3	65.7	63.9	62.1	not polarized, 1st choice same
2016 Attn General	23.8	AA	45.0	20.9	68.9	31.1	11.1	36.3	63.7	57.6	56.1	54.4	52.7	27.8
2016 Comm of Labor	23.8	AA	60.3	19.1	84.7	15.3	10.6	51.2	48.8	72.7	71.2	69.5	67.7	not polarized
2016 Treasurer	23.8	AA	59.1	20.5	70.5	29.5	10.6	53.6	46.4	64.7	64.0	63.1	62.2	not polarized
2014														
none														
2012														
2012 Lt Governor	23.8	AA	58.5	16.1	76.5	23.5	10.4	51.8	48.2	66.8	65.6	64.3	63.0	not polarized
2012 Comm of Labor	23.8	AA	39.3	15.1	47.9	52.1	8.9	35.8	64.2	43.4	42.8	42.2	41.6	no clear B-P cand

Table 18A

Senate Grouping: Duplin, Harnett, Johnson, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4 (Duplin)	22.6	AA	34.5	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
State House 25 (Nash)	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
State Senate 10	24.1	AA	37.5	30.7	99.8	0.2	33.2	16.6	83.4	56.6	52.4	48.3	44.3	42.0
2016														
2016 Lt Governor	23.3	AA	38.7	55.9	99.8	0.2	60.1	21.1	78.9	59.0	55.1	51.2	47.4	38.4
2016 Treasurer	23.3	AA	41.5	54.8	99.8	0.2	58.4	29.7	70.3	63.6	60.1	56.7	53.2	30.3
State House 7 (Nash)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25 (Nash)	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	23.3	AA	41.8	58.3	99.2	0.8	64.7	23.9	76.1	59.6	55.9	52.2	48.5	37.1
2012 Lt Governor	23.3	AA	44.8	57.1	99.1	0.9	63.6	28.4	71.6	61.8	58.3	54.9	51.4	32.9

Table 18B

Senate Grouping: Duplin, Harnett, Johnson, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.3	AA	57.8	19.0	94.1	5.9	6.5	40.2	59.8	80.4	78.2	75.8	73.2	7.1
2016 Attn General	23.3	AA	49.3	18.9	64.5	35.5	7.0	42.3	57.7	58.5	57.6	56.6	55.5	16.4
2016 Comm of Labor	23.3	W	67.7	18.6	64.9	35.1	6.6	69.3	30.7	66.1	66.2	66.4	66.6	not polarized
2016 Treasurer	23.3	AA	60.1	18.8	82.7	17.3	6.6	48.4	51.6	73.8	72.4	70.9	69.2	1.7
2014														
none														
2012														
2012 Lt Governor	23.3	AA	51.3	24.9	56.4	43.6	7.9	56.2	43.8	56.4	56.3	56.3	56.3	not polarized
2012 Comm of Labor	23.3	AA	16.9	23.9	38.5	61.5	6.9	18.4	81.6	34.0	33.3	32.4	31.5	no clear B-P cand

Table 19A

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33 (Wake)	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37 (Wake)	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38 (Wake)	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14 (Wake)	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	21.1	AA	54.0	58.3	99.6	0.4	85.8	44.1	55.9	66.6	63.9	61.4	59.0	14.9
2016 Treasurer	21.1	AA	55.4	57.3	99.5	0.5	84.3	46.4	53.6	67.9	65.4	63.0	60.6	9.7
State House 7 (Franklin)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 38 (Wake)	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33 (Wake)	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38 (Wake)	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	21.1	AA	54.7	54.7	99.5	0.5	68.3	42.1	57.9	67.6	64.8	62.1	59.4	16.6
2012 Lt Governor	21.1	AA	54.9	53.6	99.3	0.7	67.1	44.0	56.0	68.6	65.9	63.2	60.6	13.2

Table 19B

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	21.1	AA	60.7	17.6	84.7	15.3	13.3	51.3	48.7	70.3	68.7	67.0	65.2	not polarized
2016 Attn General	21.1	AA	35.4	17.0	63.2	15.4	13.0	32.4	67.6	56.7	54.3	51.9	49.5	36.0
2016 Comm of Labor	21.1	W	72.2	17.0	68.6	31.4	11.6	74.7	25.3	71.1	71.4	71.7	72.0	not polarized
2016 Treasurer	21.1	AA	63.4	17.3	90.0	10.0	12.4	53.5	46.5	74.8	73.0	71.1	69.2	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	21.1	AA	59.8	19.4	77.0	23.0	16.6	54.9	45.1	66.8	65.7	64.6	63.4	not polarized
2012 Comm of Labor	21.1	AA	37.7	19.2	56.1	43.9	13.6	31.3	68.7	45.8	44.6	43.3	42.0	68.5

Table 20

Forsyth County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	25.9	AA	51.2	42.6	98.8	1.2	73.5	42.3	57.7	63.0	60.5	58.0	55.7	21.4
2016 Treasurer	25.9	AA	50.9	39.2	99.0	1.0	72.0	42.8	57.2	62.6	60.1	57.8	55.5	21.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	25.9	AA	53.2	44.5	99.8	0.2	70.2	43.6	56.4	65.4	62.8	60.3	57.9	16.9
2012 Lt Governor	25.9	AA	53.4	44.2	100.0	0.0	68.3	44.2	55.8	66.1	63.5	61.0	58.6	15.2
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	25.9	AA	56.1	19.5	79.5	20.5	12.5	45.6	54.4	66.3	64.6	62.9	61.1	8.7
2016 Attn General	25.9	AA	45.2	18.9	69.5	30.5	12.1	35.0	65.0	56.0	54.4	52.6	50.8	33.0
2016 Comm of Labor	25.9	AA	60.8	17.8	84.2	15.8	11.7	52.0	48.0	71.4	69.9	68.2	66.5	not polarized
2016 Treasurer	25.9	AA	59.6	18.9	69.4	30.6	11.7	54.4	45.6	63.7	62.9	62.2	61.4	not polarized
2014														
none														
2012														
2012 Lt Governor	25.9	AA	58.8	15.1	66.5	33.5	11.2	52.9	47.1	60.7	60.0	59.3	58.6	not polarized
2012 Comm of Labor	25.9	AA	39.7	14.2	49.4	50.6	9.5	35.5	64.5	43.8	43.1	42.4	41.7	106.6

Table 21

Pitt County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
2016														
2016 Lt Governor	32.4	AA	51.0	47.4	98.6	1.4	68.1	33.2	66.8	60.0	56.9	53.9	51.0	33.2
2016 Treasurer	32.4	AA	53.0	45.3	99.4	0.6	66.7	35.6	64.4	61.4	58.4	55.5	52.7	30.0
2014														
none														
2012														
2012 President	32.4	AA	53.2	54.8	99.2	0.8	64.1	34.6	65.4	64.4	61.2	58.1	55.0	26.8
2012 Lt Governor	32.4	AA	55.1	53.8	99.0	1.0	62.6	37.3	62.7	65.8	62.8	59.8	56.8	23.2
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	32.4	AA	52.0	12.2	78.1	21.9	7.2	34.2	65.8	61.8	59.7	57.5	55.1	24.9
2016 Attn General	32.4	AA	61.4	11.7	71.9	28.1	6.8	22.5	77.5	53.7	51.4	48.9	46.3	42.2
2016 Comm of Labor	32.4	AA	50.5	11.5	62.3	37.7	6.7	41.9	58.1	54.8	53.8	52.8	51.7	27.7
2016 Treasurer	32.4	AA	51.3	11.4	55.1	44.9	6.9	43.1	56.9	50.6	50.0	49.4	48.7	45.0
2014														
none														
2012														
2012 Lt Governor	32.4	AA	60.5	13.7	57.2	42.8	7.4	60.9	39.1	58.5	58.7	58.9	59.1	not polarized
2012 Comm of Labor	32.4	AA	32.9	13.1	44.3	55.7	6.7	20.3	79.7	36.2	35.1	33.9	32.6	no clear B-P cand

Table 22A

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
General elections														
2018														
State House 46	14.5	AA	36.7	12.4	51.9	48.1	35.9	39.5	60.5	42.7	42.2	41.8	41.4	94.1
State House 47	46.2	NA	58.9	16.7	79.3	20.7	30.8	38.5	61.5	52.8	51.0	49.3	47.7	42.0
State Senate 13	26.5	W	61.5	17.5	53.6	46.4	35.2	57.8	42.2	56.4	56.6	56.8	56.9	not polarized
2016														
2016 Lt Governor	38.2	AA	51.6	24.0	51.7	48.3	46.6	50.7	49.3	51.0	51.0	51.0	50.9	not polarized
2016 Treasurer	38.2	AA	57.8	22.9	59.1	40.9	45.6	51.5	48.5	54.0	53.7	53.4	53.1	not polarized
2014														
none														
2012														
2012 President	38.2	AA	58.3	28.3	60.4	39.6	53.5	60.8	39.2	60.7	60.7	60.7	60.7	not polarized
2012 Lt Governor	38.2	AA	67.5	27.3	73.8	26.2	51.8	66.1	33.9	68.8	68.4	68.1	67.8	not polarized



Table 22B

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
Democratic primaries														
2018														
State Senate 13	26.5	NA	33.1	11.2	52.3	47.7	9.0	22.7	77.3	39.1	37.6	36.1	34.6	90.5
2016														
2016 Lt Governor	38.2	W	22.3	8.5	31.6	68.4	9.9	17.0	83.0	23.7	23.0	22.3	21.6	no clear N-P cand
2016 Attn General	38.2	AA	62.5	8.4	65.2	34.8	10.5	59.3	40.7	61.9	61.6	61.4	61.1	not polarized
2016 Comm of Labor	38.2	W	65.2	8.4	61.3	38.7	9.7	69.1	30.9	65.5	65.9	66.2	66.6	not polarized
2016 Treasurer	38.2	AA	67.1	8.9	72.5	27.5	10.1	59.1	40.9	65.4	64.7	64.1	63.4	not polarized
State House 47	51.0	NA	58.4	11.8	52.2	47.8	9.0	62.7	37.3	56.7	57.3	57.8	58.4	not polarized
2014														
State Senate 13	26.5	W	47.3	12.6	42.7	57.3	17.1	46.1	53.9	44.7	44.8	45.0	45.1	not polarized
2012														
2012 Lt Governor	38.2	AA	52.3	16.2	58.1	41.9	17.3	48.7	51.3	53.2	52.8	52.3	51.9	14.6
2012 Comm of Labor	38.2	W	54.4	16.4	88.0	12.0	16.1	39.4	60.6	63.9	61.5	59.1	56.6	21.5

### Certification

I certify that the statements and opinions provided in this report are true and accurate to the best of my knowledge, information, and belief.

Lisa Handley

Lisa Handley, Ph.D.

9/17/2019

Date

**Lisa R. Handley**  
CURRICULUM VITAE

Email: lrhandley@aol.com  
Telephone: ++1.301.765.5024

## **Professional Experience**

Dr. Handley has over thirty years of experience in the areas of redistricting and voting rights, both as a practitioner and an academician, and is recognized nationally (as well as internationally) as an expert on these subjects. She has advised numerous jurisdictions and other clients on redistricting and has served as an expert in dozens of redistricting and voting rights court cases. Her clients have included the U.S. Department of Justice and scores of state and local jurisdictions, as well as redistricting commissions and civil rights organizations. Internationally, Dr. Handley has provided electoral assistance in more than a dozen countries, serving as a consultant on issues of democratic governance – including voting rights, electoral system design and electoral boundary delimitation (redistricting) – for the United Nations, the United Nations Development Fund (UNDP), IFES, and International IDEA. In addition, Dr. Handley served as Chairman of the Electoral Boundaries Commission in the Cayman Islands.

Dr. Handley has been actively involved in research, writing and teaching on the subjects of voting rights and redistricting. She has written a book, Minority Representation and the Quest for Voting Equality (Cambridge University Press, 1992) and numerous articles, as well as edited a volume (Redistricting in Comparative Perspective, Oxford University Press, 2008) on these subjects. She has taught political science and methodology courses at several universities, most recently George Washington University. Dr. Handley is a Visiting Research Academic at Oxford Brookes University in the United Kingdom.

Dr. Handley is the President of Frontier International Consulting, a consulting firm that specializes in providing electoral assistance in transitional and post-conflict democracies. She also works as an independent election consultant for such international organizations as the United Nations.

## **Education**

Ph.D. The George Washington University, Political Science, 1991

## **Present Employment**

**President**, Frontier International Electoral Consulting LLC (since co-founding company in September of 1998).

**Senior International Consultant**, provides electoral assistance to such international clients as the UN, UNDP and IFES on electoral district delimitation, electoral system design and minority voting rights.

## **U.S. Clients since 2000**

American Civil Liberties Union (expert testimony in Ohio partisan gerrymander challenge and challenge to Commerce Department inclusion of citizenship question on 2020 census form)

Lawyers Committee for Civil Rights Under Law (expert testimony in challenges to statewide judicial elections in Texas and Alabama)

US Department of Justice (expert witness testimony in several Section 2 and Section 5 cases)

Alaska: Alaska Redistricting Board (redistricting consultation, expert witness testimony)

Arizona: Arizona Independent Redistricting Board (redistricting consultation, expert witness)

Arkansas: expert witness for Plaintiffs in Jeffers v. Beebe

Colorado: Colorado Redistricting Board (redistricting consultation)

Connecticut: State Senate and State House of Representatives (redistricting consultation)

Florida: State Senate (redistricting consultation)

Kansas: State Senate and House Legislative Services (redistricting consultation)

Louisiana: Louisiana Legislative Black Caucus (expert witness testimony)

Massachusetts: State Senate (redistricting consultation)

Maryland: Attorney General (redistricting consultation, expert witness testimony)

Miami-Dade County, Florida: County Attorney (redistricting consultation)

Nassau County, New York: Redistricting Commission (redistricting consulting)

New Mexico: State House (redistricting consultation, expert witness testimony)

New York: State Assembly (redistricting consultation)

New York City: Redistricting Commission and Charter Commission (redistricting consultation and Section 5 submission assistance)

New York State Court: Expert to the Special Master (drew congressional lines for state court)

Ohio: State Democratic Party (redistricting litigation support, expert witness testimony)

Pennsylvania: Senate Democratic Caucus (redistricting consultation)

Rhode Island: State Senate and State House (litigation support, expert witness testimony)

Vermont: Secretary of State (redistricting consultation)

## International Clients since 2000

### United Nations

- Afghanistan – electoral system design and district delimitation expert
- Bangladesh (UNDP) – redistricting expert
- Sierra Leone (UNDP) – redistricting expert
- Liberia (UNMIL, UN peacekeeping mission) – redistricting expert
- Democratic Republic of the Congo (MONUC, UN peacekeeping mission) – election feasibility mission, electoral system design and redistricting expert
- Kenya (UN) – electoral system design and redistricting expert
- Haiti (UN) – election feasibility mission, electoral system design and redistricting expert
- Lead Writer on the topic of boundary delimitation (redistricting) for ACE (Administration and Cost of Elections Project)

### International Foundation for Election Systems (IFES)

- Afghanistan – district delimitation expert
- Sudan – redistricting expert
- Kosovo – electoral system design and redistricting expert
- Nigeria – redistricting expert
- Nepal – redistricting expert
- Georgia – electoral system design and district delimitation expert
- Yemen – redistricting expert
- Lebanon – electoral system design and redistricting expert
- Myanmar – electoral system design and redistricting expert
- Ukraine – electoral system design and redistricting expert
- Pakistan – consultant for developing redistricting software
- Principal consultant for the Delimitation Equity Project – conducted research, wrote reference manual and developed training curriculum
- Writer on electoral boundary delimitation (redistricting), Elections Standards Project
- Training – developed training curriculum and conducted training workshops on electoral boundary delimitation (redistricting) in Azerbaijan and Jamaica

### International Institute for Democracy and Electoral Assistance (International IDEA):

- Consultant on electoral dispute resolution systems
- Technology consultant on use of GIS for electoral district delimitation
- Training – developed training material and conducted training workshop on electoral boundary delimitation (redistricting) for African election officials (Mauritius)
- Curriculum development – boundary delimitation curriculum for the BRIDGE Project
- Project coordinator for the ACE project

Other international clients have included The Cayman Islands; the Australian Election Commission; the Boundary Commission of British Columbia, Canada; and the Global Justice Project for Iraq.

## Previous Employment

***Project Coordinator and Lead Writer on Boundary Delimitation***, Administration and Cost of Elections (ACE) Project. As Project Coordinator (1998 – 2000) of the ACE Project, Dr. Handley served as a liaison between the three partner international organizations – the United Nations, the International Foundation for Election Systems and International IDEA – and was responsible for the overall project management of ACE, a web-based global encyclopedia of election administration. She also served as Lead Writer on Boundary Delimitation for ACE.

***Research Director and Statistical Analyst***, Election Data Services, Inc. (1984 to 1998). Election Data Services (E.D.S.) is a Washington D.C. political consulting firm specialising in election administration. Dr. Handley's work at E.D.S. focused on providing redistricting and voting rights consulting and litigation support to scores of state and local jurisdictions.

***Adjunct Professor*** (1986 to 1998). Dr. Handley has taught political science and methodology courses (both at the graduate and undergraduate level) at George Washington University, the University of Virginia, and the University of California at Irvine. She has served as a guest lecture at Harvard, Princeton, Georgetown, American University, George Mason University and Oxford Brookes University in the UK.

## Grants

***National Science Foundation Grant*** (2000-2001): Co-investigator (with Bernard Grofman) on a comparative redistricting project, which included hosting an international conference on "Redistricting in a Comparative Perspective" and producing an edited volume based on the papers presented at the conference.

## Publications

### ***Books:***

Does Torture Prevention Work? Liverpool University Press, 2016 (served as editor and author, with Richard Carver)

Comparative Redistricting in Perspective, Oxford University Press, 2008 (first editor, with Bernard Grofman).

Delimitation Equity Project: Resource Guide, Center for Transitional and Post-Conflict Governance at IFES and USAID publication, 2006 (lead author).

Minority Representation and the Quest for Voting Equality, Cambridge University Press, 1992 (with Bernard Grofman and Richard Niemi).

**Academic Articles:**

"Minority Success in Non-Majority Minority Districts: Finding the 'Sweet Spot'," Journal of Race, Ethnicity and Politics, forthcoming (with David Lublin, Thomas Brunell and Bernard Grofman).

"Has the Voting Rights Act Outlived its Usefulness: In a Word, 'No,'" Legislative Studies Quarterly, volume 34 (4), November 2009 (with David Lublin, Thomas Brunell and Bernard Grofman).

"Delimitation Consulting in the US and Elsewhere," Zeitschrift für Politikberatung, volume 1 (3/4), 2008 (with Peter Schrott).

"Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," North Carolina Law Review, volume 79 (5), June 2001 (with Bernard Grofman and David Lublin).

"A Guide to 2000 Redistricting Tools and Technology" in The Real Y2K Problem: Census 2000 Data and Redistricting Technology, edited by Nathaniel Persily, New York: Brennan Center, 2000.

"1990s Issues in Voting Rights," Mississippi Law Journal, 65 (2), Winter 1995 (with Bernard Grofman).

"Minority Turnout and the Creation of Majority-Minority Districts," American Politics Quarterly, 23 (2), April 1995 (with Kimball Brace, Richard Niemi and Harold Stanley).

"Identifying and Remedying Racial Gerrymandering," Journal of Law and Politics, 8 (2), Winter 1992 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation in Southern State Legislatures," Legislative Studies Quarterly, 16 (1), February 1991 (with Bernard Grofman).

"Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s," American Politics Quarterly, 17 (4), October 1989 (with Bernard Grofman).

"Black Representation: Making Sense of Electoral Geography at Different Levels of Government," Legislative Studies Quarterly, 14 (2), May 1989 (with Bernard Grofman).

"Minority Voting Equality: The 65 Percent Rule in Theory and Practice," Law and Policy, 10 (1), January 1988 (with Kimball Brace, Bernard Grofman and Richard Niemi).

"Does Redistricting Aimed to Help Blacks Necessarily Help Republicans?" Journal of Politics, 49 (1), February 1987 (with Kimball Brace and Bernard Grofman).

***Chapters in Edited Volumes:***

“Redistricting” in Oxford Handbook of Electoral Systems, Erik Herron Robert Pekkanen and Matthew Shugart (eds), Oxford: Oxford University Press, 2018.

“Role of the Courts in the Electoral Boundary Delimitation Process,” in International Election Remedies, John Hardin Young (ed.), Chicago: American Bar Association Press, 2017.

“One Person, One Vote, Different Values: Comparing Delimitation Practices in India, Canada, the United Kingdom, and the United States,” in Fixing Electoral Boundaries in India, edited by Mohd. Sanjeer Alam and K.C. Sivaramakrishnan, New Delhi: Oxford University Press, 2015.

“Delimiting Electoral Boundaries in Post-Conflict Settings,” in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

“A Comparative Survey of Structures and Criteria for Boundary Delimitation,” in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

“Drawing Effective Minority Districts: A Conceptual Model,” in Voting Rights and Minority Representation, edited by David Bositis, published by the Joint Center for Political and Economic Studies, Washington DC, and University Press of America, New York, 2006.

“Electing Minority-Preferred Candidates to Legislative Office: The Relationship Between Minority Percentages in Districts and the Election of Minority-Preferred Candidates,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

“Estimating the Impact of Voting-Rights-Related Districting on Democratic Strength in the U.S. House of Representatives,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman).

“Voting Rights in the 1990s: An Overview,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

“Racial Context, the 1968 Wallace Vote and Southern Presidential Dealignment: Evidence from North Carolina and Elsewhere,” in Spatial and Contextual Models in Political Research, edited by Munroe Eagles; Taylor and Francis Publishing Co., 1995 (with Bernard Grofman).

“The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations,” in The Quiet Revolution: The Impact of the Voting Rights Act in the South, 1965-1990, eds. Chandler Davidson and Bernard Grofman, Princeton University Press, 1994 (with Bernard Grofman).



"Preconditions for Black and Hispanic Congressional Success," in United States Electoral Systems: Their Impact on Women and Minorities, eds. Wilma Rule and Joseph Zimmerman, Greenwood Press, 1992 (with Bernard Grofman).

***Electronic Publication:***

"Boundary Delimitation" Topic Area for the Administration and Cost of Elections (ACE) Project, 1998. Published by the ACE Project on the ACE website ([www.aceproject.org](http://www.aceproject.org)).

***Additional Writings of Note:***

Amicus brief presented to the US Supreme Court in Gill v. Whitford, Brief of Political Science Professors as Amici Curiae, 2017 (one of more than a political scientists to sign brief)

Amicus brief presented to the US Supreme Court in Shelby County v. Holder, Brief of Historians and Social Scientists as Amici Curiae, 2013 (one of several dozen historians and social scientists to sign brief)

Amicus brief presented to the US Supreme Court in Bartlett v. Strickland, 2008 (with Nathaniel Persily, Bernard Grofman, Bruce Cain, and Theodore Arrington).

## **Court Cases since 2015**

*Ohio Philip Randolph Institute v. Larry Householder* (2019) – partisan gerrymander challenge to Ohio congressional districts

*State of New York v. U.S. Department of Commerce/ New York Immigration Coalition v. U.S. Department of Commerce* (2018-2019) – challenge to inclusion of citizenship question on 2020 census form

*U.S. v. City of Eastpointe* (ongoing) – minority vote dilution challenge to City of Eastpointe, Michigan, at-large city council election system

*Alabama NAACP v. State of Alabama* (ongoing) – minority vote dilution challenge to Alabama statewide judicial election system

*Lopez v. Abbott* (2017-2018) – minority vote dilution challenge to Texas statewide judicial election system

*Personhaballah v. Alcorn* (2016-17) – racial gerrymander challenge to Virginia congressional districts